NOVEMBER 29, 1957

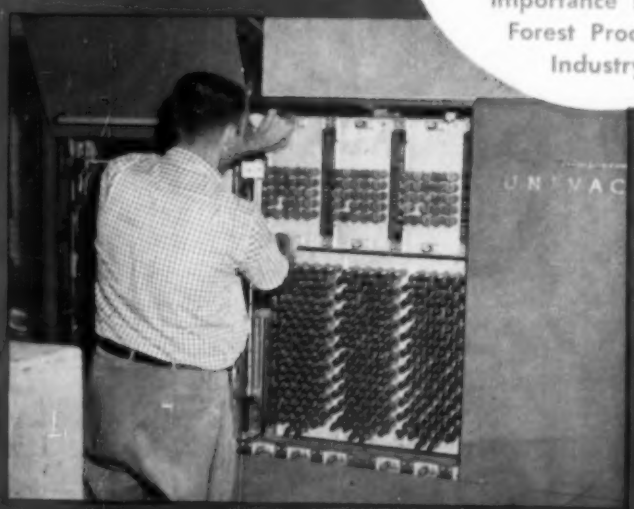
THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

NEW TOOLS:

BUSINESS MACHINES

. . . and their increasing importance in the Forest Products Industry



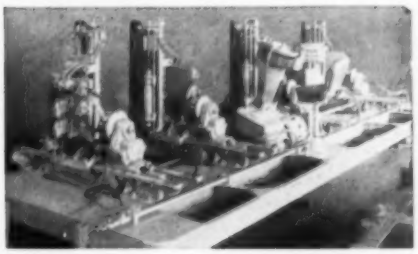
Also in this issue:

- ★ How to 'Diversify and Multiply'
- ★ A Design for Better Utilization
- ★ Radio Ties Operation Together

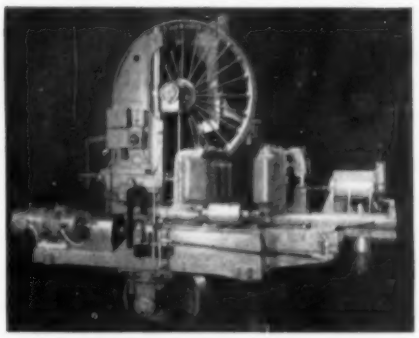
Higher Production
Lower Overhead
Greater Profits

PRESCOTT

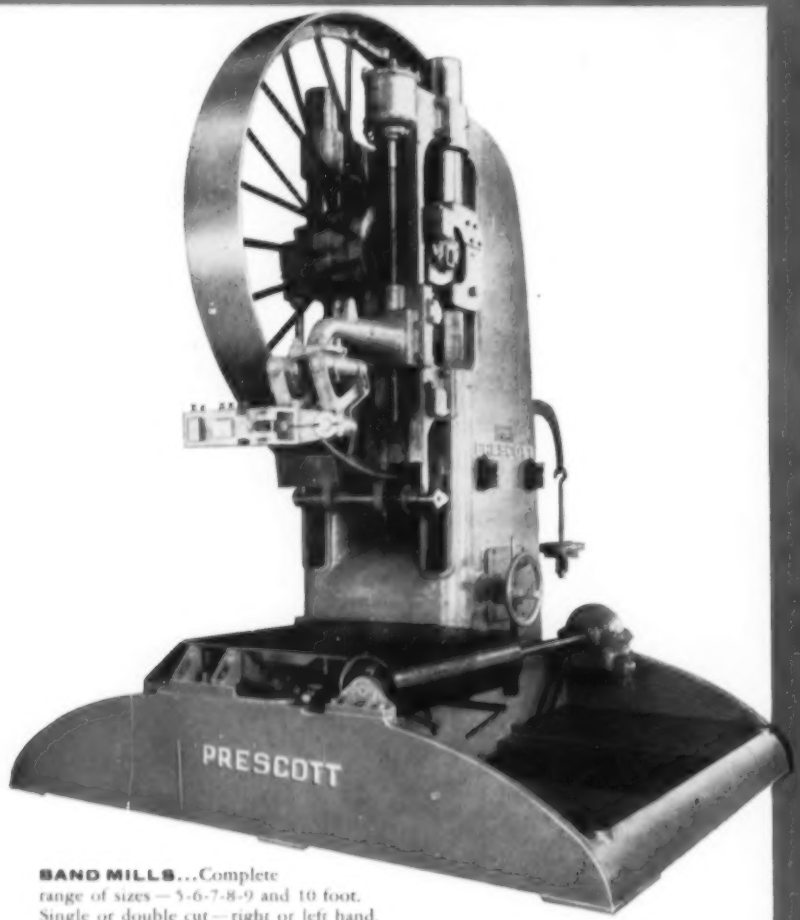
Sawmill Machinery



CARRIAGES Rack and pinion; screw block. Medium and heavy-duty. Right and left hand.



VERTICAL AND HORIZONTAL RESAWS Complete range of sizes — 5-6-7 foot. Precision accuracy — minimum kerf waste.



BAND MILLS... Complete range of sizes — 5-6-7-8-9 and 10 foot. Single or double cut — right or left hand.

MORE SALEABLE LUMBER PER LOG is the result of the advanced engineering service-proved basic features, heavy-duty construction, and the operating precision of Prescott sawmill machinery. You get maximum quantity and grade from every log.

LOWER PRODUCTION COSTS are assured. Log loading and turning are stepped up. You can cut more lines per minute with less waste. Downtime is virtually eliminated and slow, costly, old fashioned methods can be scrapped immediately.

INCREASED PROFITS naturally follow when you install Prescott heavy-duty, sawmill machinery. It's specifically designed to meet today's needs for higher production, lower costs and greater dependability in every phase of sawmill operation. We'd like to show you how Prescott can help you increase the efficiency of your mill and thus help you to make more money year after year.

CALL, WIRE OR WRITE for complete information, detailed technical data, illustrated literature or the services of a trained sawmill engineer. No obligation, of course.

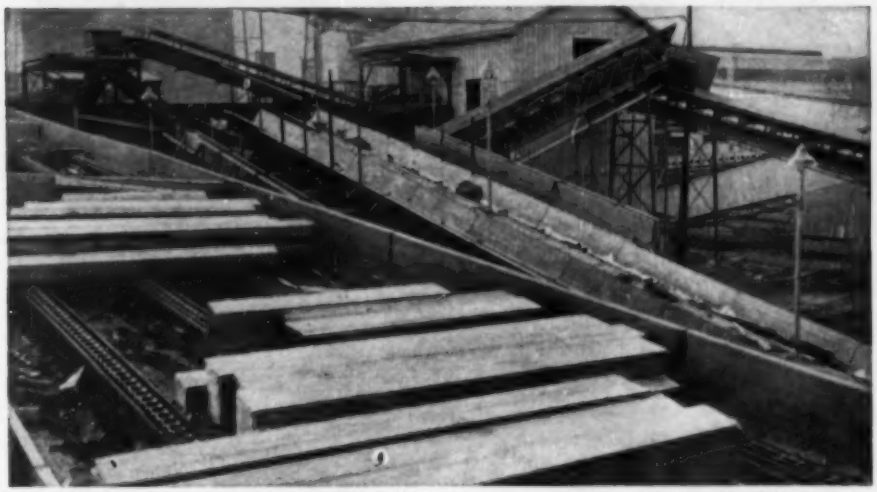
For Profitable Sawmill Operation... **SPECIFY**

PRESCOTT

HIGH EFFICIENCY, HEAVY-DUTY SAWMILL MACHINERY

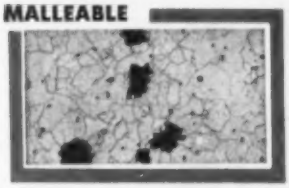
THE PRESCOTT COMPANY, *Menominee, Michigan*

Promal chain specified to resist heavy loads and abrasive wear

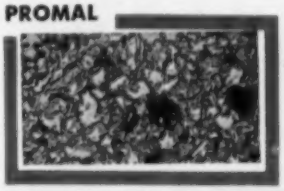


LONGER SERVICE, LOWER CONVEYING COSTS are achieved through the use of Link-Belt Promal Class H pintle chain. Longer-wearing Promal prevents distortion of links under severe impact.

MALLEABLE



PROMAL



MICROPHOTOS show difference between ordinary malleable iron and Promal. Left—white areas in malleable microphoto represent "free iron" . . . black shows soft nodules of carbon. Right—dark areas in Promal structure show stronger, stiffer reinforcing material which strengthens metal; resists distortion, wear.

Specially heat-treated malleable iron provides extra wear resistance

Fewer conveyor shutdowns and minimized replacements are economies realized by users of Link-Belt Promal chain. Its greater strength absorbs continuous impact loads — and wear resistance supplies the durability to cope with severe abrasion.

Promal is more than a partially annealed or surface-hardened malleable iron. Developed by Link-Belt, this specially heat-treated malleable iron is actually transformed into a metal of radically different physical properties. Promal, because of uniform micro-structure throughout its whole section, provides greater ultimate strength, higher yield point, exceptional fatigue resistance and a remarkable capacity to withstand abrasive conditions.

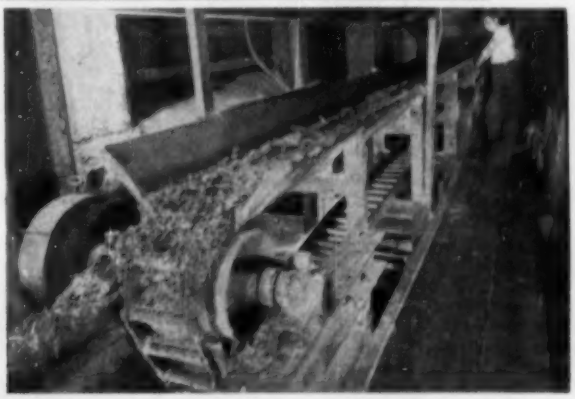
For unusually abrasive or mild corrosive conditions, Promal chain can be furnished with "file-hard" surfaces. Copper bearing or special alloy content also available.

Where and how to apply Promal Chain in the lumber industry

Choose Link-Belt Promal chains for highly abrasive conditions (as with sandy bark) — for the extra strength and wear resistance demanded by heavy loads or long, sliding conveyors. They last much longer . . . cost but little more.

The wide range of Link-Belt chains available in Promal includes all types of cast and combination chains.

CLASS C combination chains for conveying and elevating combine cast center links with steel sidebars connected by steel pins. Rugged links with elliptical barrels provide extra metal for sprocket contact . . . straight tops and bottoms permit chains to be used for drag conveying. Accurately machined sidebars give full bearing area for pins.



CLASS H combination drag chain for refuse conveying can be turned over to double service life. Sides and barrels of links are cast integral to resist distortion. Rounded side of barrel offers proper sprocket contact, while the other forms a vertical pushing surface. Accurately machined pitch holes in steel sidebars assure tight press fit. Chain is available in four sizes.

HEADQUARTERS for chains, sprockets and other Link-Belt conveying and mechanical power transmission products is your nearby Link-Belt factory branch store or authorized stock-carrying distributor.

LINK-BELT

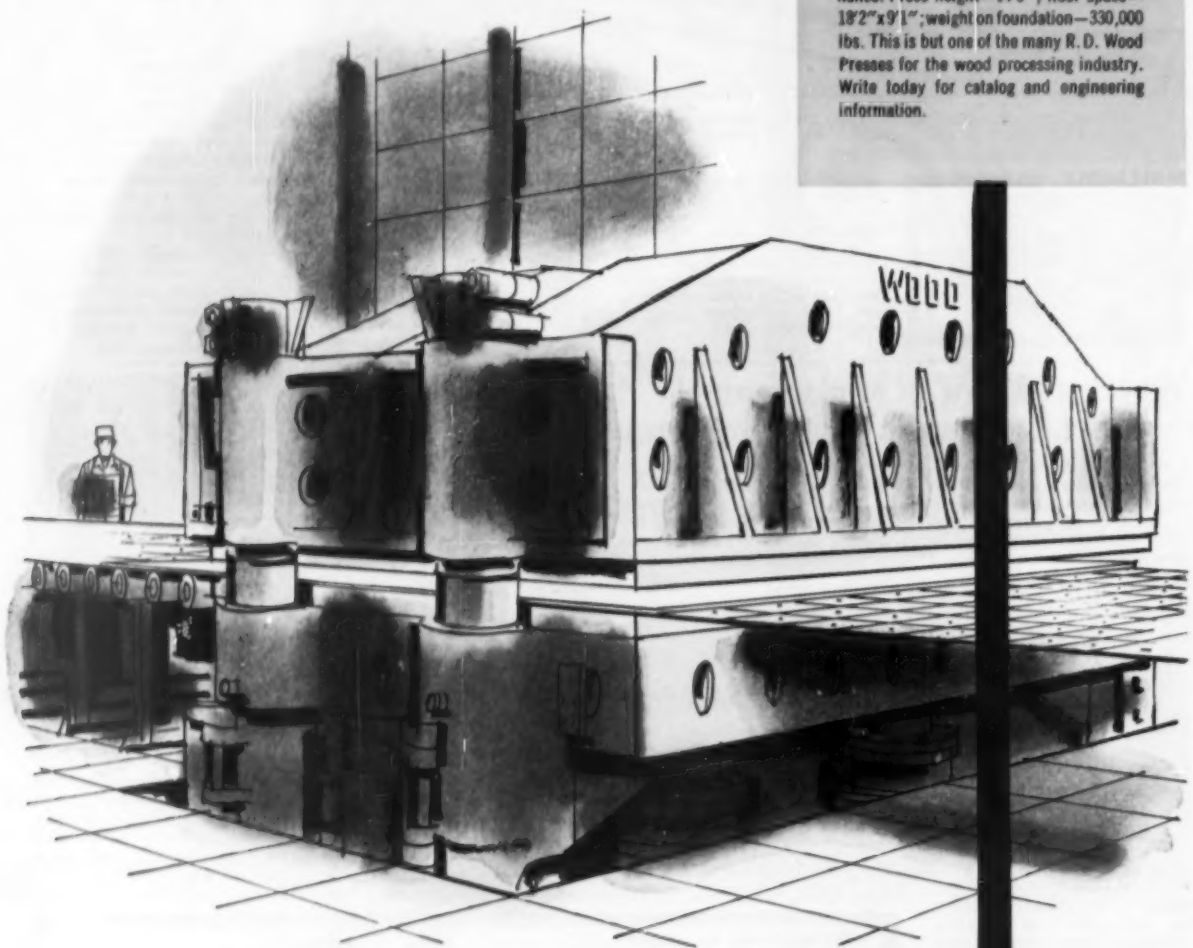
CHAINS AND SPROCKETS

LINK-BELT COMPANY: Plants, Sales Offices and Factory Branch Stores at San Francisco 24, Los Angeles 22 (Montebello), Seattle 4. Sales Offices and Factory Branch Stores at Portland 9, Spokane 10, Salt Lake City 1. Stock Carrying Distributors in Principal Areas.

You can design your own press at R. D. Wood

Working with numerous basic models, R. D. Wood engineers incorporate your specifications and modifications to produce the press exactly suited to your needs. You can be sure of its quality, too. For every Wood Press is constructed of selected materials by master craftsmen. This is your warranty of dependable performance and precise operation. Why not consult us when planning your next hydraulic press?

1200 ton R. D. Wood Hydraulic Press for the manufacture of composition board. Platen size—13'10" x 9'1"; operating daylight—3", open to 24" for inspection and maintenance. Press height—14'0"; floor space—18'2"x9'1"; weight on foundation—330,000 lbs. This is but one of the many R. D. Wood Presses for the wood processing industry. Write today for catalog and engineering information.



R. D. WOOD COMPANY

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November 29, 1957

EDGAR P. HOENER
Publisher and General Manager

THE Lumberman

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A MILLER FREEMAN PUBLICATION

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STANDARD ENGINEER'S FIELD REPORT

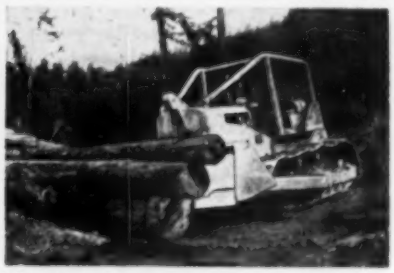
PRODUCT **RPM TRACTOR ROLLER LUBRICANT**

FIRM **LITTLE TWIG LOGGING CO. Roseburg, Oregon**

4,000 hours without track roller loss using RPM

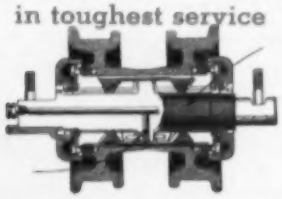
Using RPM Tractor Roller Lubricant, Little Twig Logging Co. gets unusually good service from track rollers, even on steep hillside operation in the Cascades. Parts are serviced with RPM Tractor Roller Lubricant at regular intervals. In more than 4,000 hours of tough logging work, not a single bushing or track roller has failed on this Caterpillar D7 (above). Little Twig co-owner Bob Trenholm says, "All these rollers are in good shape; seals are tight and bushings trouble-free. In spite of some pretty rough treatment I expect them to go at least 5,000 hours, and we consider that very good service!"

Dust, mud, and rain are sealed out of bearings by RPM Tractor Roller Lubricant. Firm has used product 9 years—never lost a track roller through failure of lubricant.



Moving logs from stand to show, and building roads into the woods keep Little Twig's four tractors workirg hard 11 months of the year. All use RPM Tractor Roller Lubricant.

Why RPM Tractor Roller Lubricants resist wear in toughest service



- Flow evenly to all bearing surfaces—retard rusting
- Chemical agents maintain tough lubricating film and stability
- Additive materials keep lubricant on bearings, resist leakage, help form protective seal for bearings
- Lubricants meet specifications of all tractor manufacturers.

For More Information on this product, contact your Standard Engineer or Representative, or write Standard Oil Company of California, 225 Bush St., San Francisco 20, Calif.

RPM

TRADEMARK "RPM" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA

INDUSTRY TRENDS

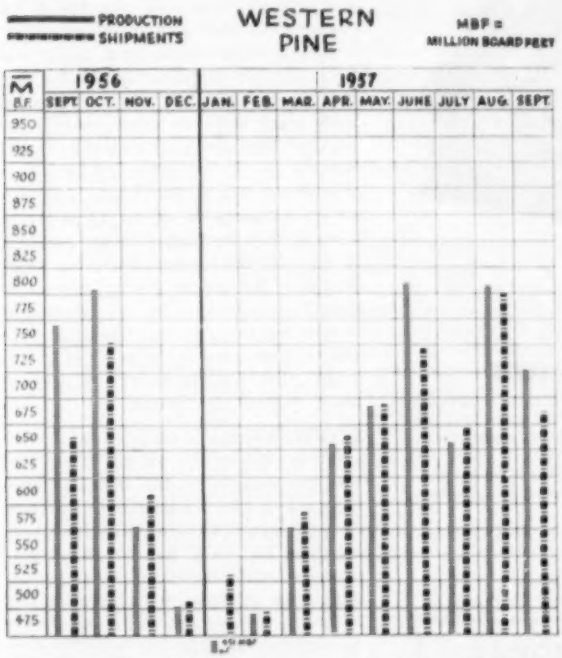
FISCAL PICTURE: Two major forest products industry members report a pickup. Georgia-Pacific Corporation says its sales and earnings for the nine months ended September 30 are the highest of any similar period with net profit up 15%, sales up 38%. Crown Zellerbach Corporation says sales and earnings in the third quarter were the best of the year, both up 8% over the average for the first two quarters. Production in the third quarter, was about 8% under the average of the first two quarters because of curtailment of kraft paper and board machines.

TIMBER OUTPUT in Washington in 1956 exceeded the previous year by more than a third of a billion feet. The total is 5 billion feet. State and private lands netted most of the cut . . . 3.8 billion feet. National forests contributed 994 million feet.

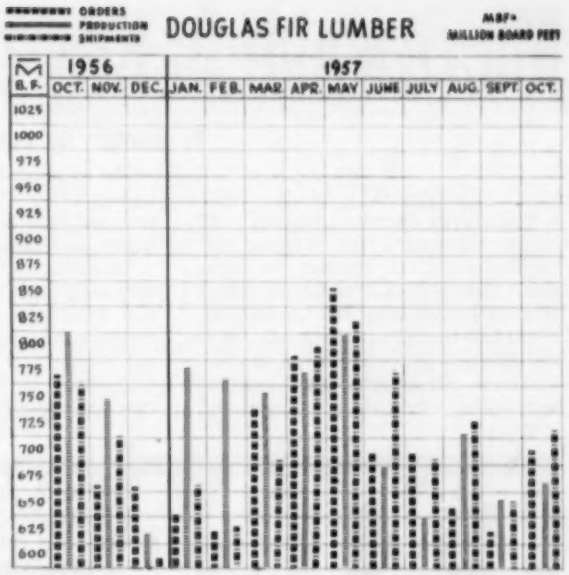
WOODEN BOX production in August was 2.7% ahead of August, 1956, due largely to booming activity in the Inland Empire in the west where activity was up nearly 60% over a year ago. For the U. S. as a whole, activity at the end of eight months is 2.3% behind 1956. The Inland Empire's gain of nearly 30% over the first eight months of 1956 shoves the West's 8-month total .51% over a year ago.

B. C. WATERBORNE TRAFFIC in lumber picked up in September, due principally to increased movement to the United Kingdom and to the Atlantic Coast and Gulf area in the United States. Movement from the western states of the United States was down from August.

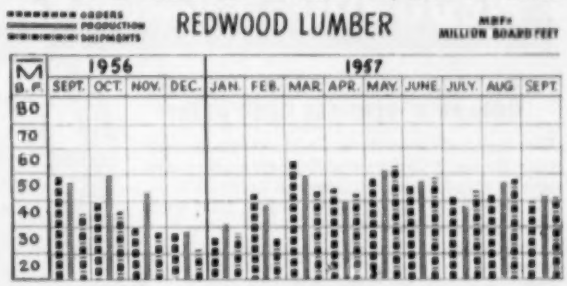
LUMBER PRODUCTION nationally totaled 2.9 billion feet in September, 9% behind the same month of 1956. The total for the first nine months of the year is estimated at 25.7 billion feet, down 10% from a year ago. Gross stocks on September 30 totaled 9.7 billion feet, 4% above a year ago.



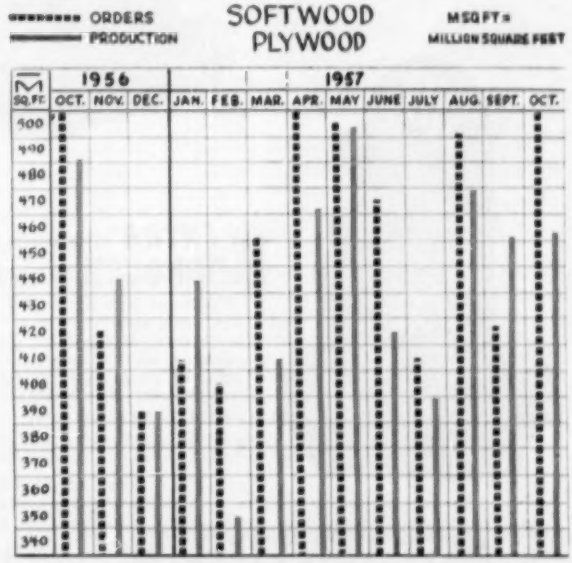
WESTERN PINE region production at the end of nine months totals 5.8 billion feet, compared to 6.6 billion feet in 1956. Shipments total 5.9 billion feet, compared to 6.4 billion feet in 1956. Gross stocks on September 30 total 2 billion feet, the same as in 1956.



DOUGLAS FIR region production at the end of 10 months totals 6.9 billion feet, compared to 7.7 billion feet a year ago. Orders to date are 6.9 billion feet, shipments 7 billion feet. Unfilled orders at the end of October total 468 million feet; stocks 995 million.



REDWOOD production for nine months of 1957 totals 412.6 million feet, shipments 398 million feet, orders 390 million feet. In 1956, totals were 514 million feet production, 473 million feet shipments, 456.6 million feet orders. Stocks on Sept. 30 were 392.8 million feet.



DOUGLAS FIR PLYWOOD production at the end of 44 weeks totals 4.6 billion square feet, up 4.2% over a year ago. Weekly production average is 104 million square feet, compared to 99.8 million square feet a year ago. Unfilled orders are at 333 million square feet.

Microwave Is Key to Data Transmission

By ROBERT W. OLIN, Potlatch Forests, Inc.

Chairman, Forest Industries Radio Communications; Chairman, Operation Fixed Microwave Council

• The term "lumber business" no longer connotes a few widths and lengths of boards. Instead, the salesmen's listing classed under the broad term of lumber may number between 5,000 and 10,000 separate items carrying different prices and physical specifications. All of these items must be coordinated through manufacturing, and delivered as specified to the customer on schedule.

In addition, there is a multitude of operating detail relevent to the men and machines of production. Each employe has an identifiable rate of pay complicated by overtime and contract rates. To his gross pay must be attached those deductible items of income tax, social security, insurance, union dues, hospital plan, commissary and special purpose deductions to arrive at his pay check to be distributed to him at scheduled intervals.

Thus, the forest products industry finds itself firmly enmeshed in tremendous masses of data with each solitary item something that must be extracted from the mass, worked upon for given results and reassembled into a final comprehensive result. Without these figures, business could not operate. It was inevitable that man would apply his technological knowledge to relieve himself of this burden of manual data processing.

RAPID COMMUNICATION is essential for rapid handling and processing of the data. This means high quality transmission channels. The forest products industry is immediately handicapped when it considers data transmission from the centers of the forest and plant operations. The lack of population and other factors have made it impractical for communication common carriers to build adequate circuitry. The existing telephone circuits are of very limited low quality and seldom cover all the points of concern to the individual operator.

Brand band microwave radio has been developed which is reliable for data transmission as well as to serve inter plant and interwoods communications simultaneously with data transmission. It can be projected in a narrow beam like a searchlight and can cover distances of 25 to 35 miles in a single hop. Its high frequency makes it free of the many electrical interferences that might hinder automatic data transmission. On one channel it is possible to carry on numerous telephone conversations as well as to operate other teletype machines and remote control operations.

ECONOMICALLY, broad band microwave is within the range of normal business enterprise, but being a radio medium, it falls under the jurisdiction of the Federal Communications Commission. The FCC has not made permanent assignments or rules under which the microwave frequencies can be utilized. However, under temporary developmental licenses, many enterprises have gambled millions of dollars that FCC will eventually permit

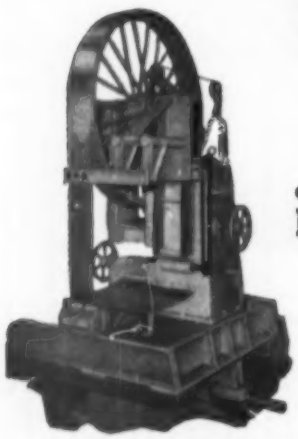
(*Continued on page* 43)

EXTRA CAPACITY ACCURACY PRODUCTION

McDONOUGH Vertical Band Resaws

Meet competition profitably with this MODERN 6′ VERTICAL BAND RESAW

The moderate investment and low maintenance plus the built-in features that give you extra production let you compete at a profit. A typical feature is the scientific design that puts mass and weight where it is most needed for accurate sawing at high speeds. For a complete description of all of the modern features of McDonough Vertical Band Resaws ask your McDonough Dealer or write direct. Available in 44″, 54″, 62″, 6′ and 7′ sizes.



GET ***EXTRA*** OVER-RUN WITH

McDONOUGH BAND MILLS

Maximum accuracy at high speed plus minimum kerf adds up to extra over-run that soon pays for a Modern McDonough Band Mill. Continuous research and development backed by over 65 years of production leadership insures your new McDonough Band Mill being tops in modern design at moderate cost.

McDonough 62″ Heavy Duty Band Mill Illustrated. Available in sizes from 54″ to 7′.

Ask your McDONOUGH Dealer for complete information or write direct.

McDONOUGH MANUFACTURING CO.

1502 GALLOWAY
EAU CLAIRE, WISC.

MICRO SWITCH . . . FIRST IN PRECISION SWITCHING

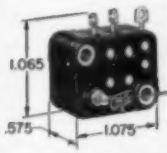
From trees to finished lumber...

MICRO SWITCH Precision Switches help make every step MORE PRODUCTIVE

Here are just a few of the switches loggers and saw mill operators are using to make operations safer, more automatic and less costly

Precision switches are used in the lumber industry as—

- Sail switches on chain saw air intakes.
- Trigger switch to key signal whistles.
- Sealed toggle switches control truck headlights, heaters and accessories.
- Limits to stop log haul motor.
- Limit for hydraulic ram arm travel.
- Sequencing of hydraulic valves.
- Log barker controls to rotate high-pressure nozzle.
- Controls for log barker circuits.
- Auxiliary timing circuit controls.
- Saw carriage controls and automatic setworks.
- Automatic length selectors for trim saws.
- Pushbutton switches in control handles.



These small switches help cool the whirring chain saws

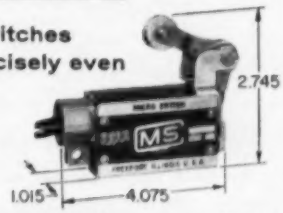
MICRO SWITCH V4-14 precision switches (shown) and MICRO SWITCH 1SE1 Subminiature switches are used as sail switches on the air intake of chain saws. The V4-14 is an ultra-small low torque switch with rotary type actuation.

CHARACTERISTICS

Operating torque—4 gram in. max., Release torque—.5 gram in. min., Pretravel—20° max., Overtravel—20° min., Contact separation .008 in. min., Total travel—38° min.

Electrical rating—Listed by Underwriters' Laboratories for 5 amps. 125 or 250 vac. Inrush current values should not exceed this rating.

These switches work precisely even amid log barker oil spray



These MICRO SWITCH Type BZLN switches are used extensively around log barker circuits. In one type of barker it operates even though submerged in a bath of oil spray. The switch shown has an adjustable roller-arm actuator and is suitable for operation by fast cams or slides. The roller arm is field adjustable through a vertical arc of 260 degrees.

CHARACTERISTICS

Operating force—3 lbs. max., Release force—¼ lb. min., Pretravel—5/64 in. max. (3°), Overtravel—15/32 in. min. (17°), Differential travel—.014 in. max. (½°).

Electrical rating—15 amps., 125, 250 or 460 vac; ½ amp. 125 vdc; ¼ amp. 250 vdc.

These switches have unlimited uses in logging camp and saw mill

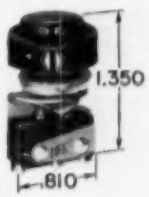
MICRO SWITCH ML precision switches have the rugged construction, the ability to "take it" that so many lumber operations require. Available in single and two circuit switching units, with three actuator styles—roller arm (shown), roller plunger and straight plunger, and in sealed or explosion-proof enclosures, these switches are ideal for limits, safeties and interlocks.

CHARACTERISTICS

Operating force—3 lbs. max., Release force—¼ lb. min., Pretravel—12° max., Overtravel—60° min., Differential travel—4° max.

Electrical rating—20 amps. 120, 240 or 480 vac; ½ amp. 115 vdc; ¾ H.P. 110 vac; 1½ H.P. 220 vac. Pilot duty rating: 10 amps. 120, 240, 480 vac.

Install these pushbutton switches in equipment control handles



MICRO SWITCH 1PB42 switches—low force pushbutton switches—have been found to be invaluable for installation as electrical controls in such equipment as log barker handles and carriage control handles. This is a panel-sealed assembly. To facilitate wiring, the push button is mounted in the panel and the switching unit is then snapped into place beneath the panel.

CHARACTERISTICS

Operating force—1¼ lbs. max., Weight .04 lbs.

Electrical rating of SPDT switching unit—5 amps. 125 or 250 vac.

MICRO SWITCH has technical specialists fully experienced in the application of switches to lumber and wood working applications. Call your nearest branch office. Stocks of switches are in the hands of authorized distributors everywhere.

MICRO SWITCH

A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

In Canada, Leaside, Toronto 17, Ontario • FREEPORT, ILLINOIS

LUMBER • TIMBER • FOREST PRODUCTS STOCKS

LA SALLE SECURITIES CO., INVESTMENT SECURITIES, 208 LA SALLE STREET, CHICAGO, ILL.

NOMINAL QUOTATIONS • NOVEMBER 13, 1957

STOCKS	Paid 1956	This Month Bid	This Month Ask	Last Month Bid	Last Month Ask
Ambassador Oil Com.	$	4½	5½	5	6
American Forest Products Com.	1.00 &S	21	23	22	24
Anderson Tully Co., Capital Stock	40.00	300	OW	300	OW
Atlas Plywood Com.	.15	4¾	C	4¾	C
Atlas Plywood $1.25 Pfd.	1.25	9¾	10¾	10⅛	11⅛
Bliss-Coleman Lbr. Co. Com.	•	17	OW	18	OW
Boise Cascade Corporation, Com.	.50	14½	15½	14½	16½
Booth-Kelly Lumber Co., Com.	35.00	675	OW	675	OW
George E. Breece Lbr. Com.	•	2½	OW	2½	OW
British Columbia Forest Prod., Com.	.50	8⅞	C	8¾	C
Brooks-Scanlon, Inc. Com. "A"		21	OW	46	OW
Brooks-Scanlon, Inc. Com. "B"		22	OW		
Calaveras Land & Timber Co., Com.	2.50	18	20	19	21
Calcasieu Paper Co., Com.		25	O/W		
Cascades Plywood Co., Com.	2.00	22	23½	21½	23½
Central Coal & Coke Co., Com.	1.25	29	32	29	31
Cherry River Boom & Lbr., Com.	2.50	29	32	31	32½
Chicago Mill & Lbr. Co., Com.	1.25	18½	20	17½	18½
Cloquet Lumber Co., Com.	•	1	O/W	1	OW
Clover Valley Lbr. Co., Com.	20.00	225	OW	225	OW
Consolidated Naval Stores, Cap. Stock	20.50	570	OW	570	OW
Container Corp., Com.	2.50	17	C	17¼	C
Container Corp. 4⅝ Pfd.	4.00	82	C	85	C
Crossett Company, Class "A"	.55	25½	27½	26½	28½
Crossett Company, Class "B"	.55	25	27	25½	27½
Crown Zellerbach, Com.	1.80	43½	C	45¼	C
Crown Zellerbach, $4.20 Pfd.	4.20	86⅛	C	87⅛	C
Curtis Companies, Com.	.60	6¾	7¾	7⅜	8⅜
Dierks Forest, Inc.	5.00	110	OW	110	OW
Evans Products Co.	1.60	11⅛	C		
Fordyce Lumber Co., Cap. Stock	1.25	39	OW	41	OW
General Plywood, Com.		10⅝	C	14⅛	C
Georgia-Pacific Co., Com.	1.40 &S	25½	C	26½	C
Harbor Plywood, Com.	.45	13⅛	C	11½	C
Hardwood Tbr. Liq. Tr.	21.27	400	OW	400	OW
Edward Hines Lumber Co., Com.	3.00	33½	35½	34	36
Holmes Eureka Lbr., Com.	.10	2¼	3¼	2⅛	3⅛
Insular Lumber Co., Com.	1.75	13	16	13	15
International Paper, Com.	3.00 &S	85¼	C	88	C
International Paper, $4 Pfd.	4.00	85	C	85¼	C
Keyes Fibre Co., Com.	1.20	15¾	16¾	17¼	18¼
Kirby Lumber Corp., Com.	1.00	33	37	35	40
Longview Fibre Co., Com.	2.50	58	62	59	62
Louisiana Central Oil & Gas, Com.	10.00	50	OW	50	OW
Louisiana Long Leaf Lumber Co.	30.00	70	OW	70	OW
Louisiana Sawmill Co. Com.	.75	½	OW	½	OW
MacMillan & Bloedel, "B", Com.	1.00	25¼	C	26½	C
McCloud River Lumber Co., Com.	4.75	58	63	60	65
McCloud River Railroad, Com.	1.00	30	35	30	35
Meadow River Lumber Co., Com.	•	195	OW	195	OW
Medford Corp., Com.	7.00	155	165	160	170
Mississippi Land Co., Cap. Stock	2.30	13	OW	13	OW
Northwest Paper Co., Com.	2.00	28	31	29	OW
O. & N. Lumber Co., Cap. Stock	2.00	45	OW	45	OW
Olin Oil & Gas, Com.		15	16	17¼	18¼
Ozan Lumber Co., Com.	•	95	OW	95	OW
Pacific Lumber Co., Cap. Stock	12.00	210	235	240	260
Pickering Lumber Co., Com.	.95	7	8	8	9
Pine Tree Manufacturing Co., Com.	3.00	85	OW	85	OW
Pope & Talbot, Inc., Com.	1.35	19	21	20½	22½
Pope & Talbot, Inc., Pfd.	.30	4¼	5¼	4¼	5¼
Potlatch Forests, Com.	1.75	79	89	70	80
Powell River Co., Ltd., Com.	1.80	33	34	34	36
Puget Sound Pulp & Timber Co., Com.	2.00	13⅞	C	14	C
Richmond Cedar Mfg., Com.		⅜	⅞	⅜	⅞
Richmond Cedar Works, Com.		⅞	1⅞	1¼	2¼
Ritter, W. M., Lumber Co., Com.	1.75 &S	45	50	45	50
Rock Island Millwork Co., Com.	.25	25	OW	25	OW
Roddis Plywood, Com.	.60 &S	8¾	9¾	8	9
Southern Minerals Corp., Com.	•	3	4	3¼	4¼
Southwest Lumber Mills, Com.	.45	6¼	7¼	6¾	7¾
Tremont Lumber, Com.	1.00	65	OW	65	OW
U. S. Plywood, Com.	2.20	27¼	C	29¾	C
Union Lumber Co., Com.	1.25	35	40	38	43
United States Lumber, Com.	.40	3½	4½	3½	4½
Upson Company, Com.	1.20	13	14	12¼	13¼
West Side Lumber Co., Com.	20.00	170	OW	170	OW
Weyerhaeuser Timber, Com.	1.00	30¼	31¾	31	33
Winton Lumber, Com. (Split 12-for-1)	.92	15	OW	15	OW
Wood Conversion Co., Com.	.60	11¾	12¾	12	13
Woodusa, Inc., Com.		⅜	OW	½	1

BONDS

Georgia-Pacific Plywood, Sub. Deb. 5s—1976		70	75	

*Information not available BW—Bids Wanted S—Stock
OW—Offerings Wanted C—Last sale on Exchange where listed or bid

THE ABOVE INFORMATION, WHILE NOT GUARANTEED, IS OBTAINED FROM SOURCES WE BELIEVE TO BE RELIABLE

Rader Solves CONVEYOR PROBLEMS
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PIPELINE GOES OVER YARD, UNDER POND AND ROAD TO RAIL CARS
OR ANY DESTINATION, CARRYING CHIPS, BARK, SAWDUST OR SHAVINGS.
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Why package lumber?

Why should your mill package lumber?

...Because you can sell more lumber and give better service to customers. Most of the larger lumberyards now have lift trucks. Using mechanized unloading methods, they can greatly reduce their handling costs. One yard we know has unloaded a car of packaged lumber in 16 minutes!

...Because you can get a better price for packaged lumber.

...Because you can save on loading time. One mill we know has loaded a carload, packaged, in an hour and 15 minutes, using only two men.

But aren't there a lot of problems in shipping packaged lumber?

...Yes, indeed. Problems that concern the mill, the railroad and the lumberyard.

And aren't the problems apt to be different at different mills?

...They are.

Then how should you go about packaging lumber?

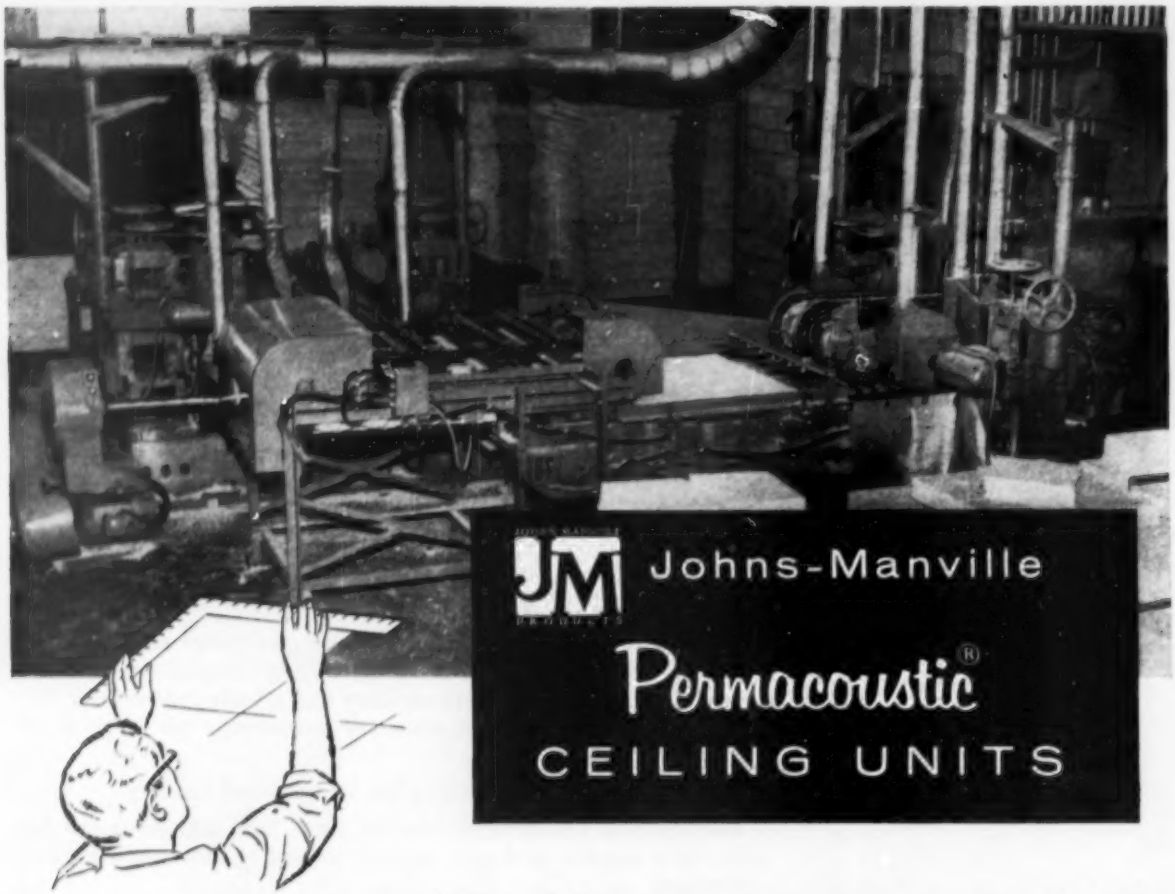
...We have worked with various mills, and have developed and tested ways of shipping packaged lumber. We have men, experienced in lumber shipping, who can help you adapt these tested methods to your own operations. And we have a nationwide network of men working with lumberyards and railroads who can help co-ordinate your program with your carriers and your customers.

...We'll be glad to help. It costs nothing to find out what we can do for you. Just call the Signode man near you, or write:

SIGNODE STEEL STRAPPING CO.

2616 N. Western Avenue, Chicago 47, Illinois

Pittsburg, Calif., Loveridge Road • Eugene, 1955 Todd • Portland, 1519 N.W. Irving St. • Seattle, 2 Hanford St. • Spokane, 417 Paulsen Bldg. • Olympia, 1024 Eskridge Blvd. • Canadian Steel Strapping Co., Ltd., Vancouver, B. C.



are cut perfectly square on two GREENLEE DOUBLE-END SAWS with automatic transfer

Johns-Manville Permacoustic is widely used to deaden noise . . . add architectural beauty in conference rooms, executive offices, banks, schools, etc. Each unit must be uniform in size and perfectly square. Johns-Manville, at their Alexandria, Indiana plant, cuts nine units at a time from rough molded sheets. Exact dimensions are constantly maintained. *No further machining is necessary for squareness.*

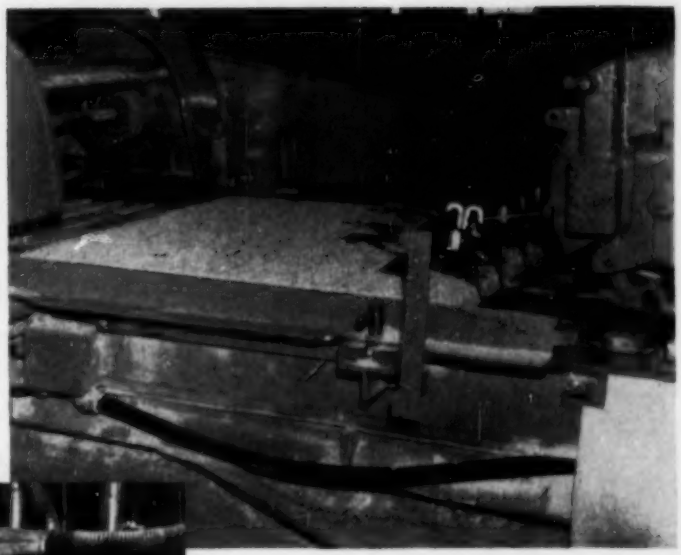
Although the mineral material is highly abrasive, the feed chains and tracks on these Greenlee 542's have demonstrated exceptional durability. Servicing and lubricating can be done without disassembly. Downtime is reduced . . . there is no need for spare sets of feed chains. These Greenlees have doubled Johns-Manville production . . . an enviable record that can be duplicated in your plant. Investigate today!

Put a Profit in Your Woodworking With Greenlee Machines

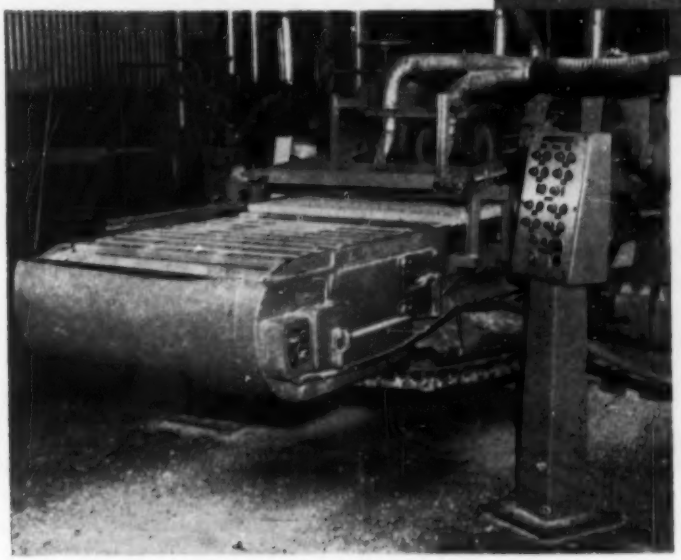
WOODWORKING MACHINERY MANUFACTURERS ASSOCIATION

GREENLEE BROS. & CO.

**1871 TWENTY-FIRST AVE.
ROCKFORD, ILL.**



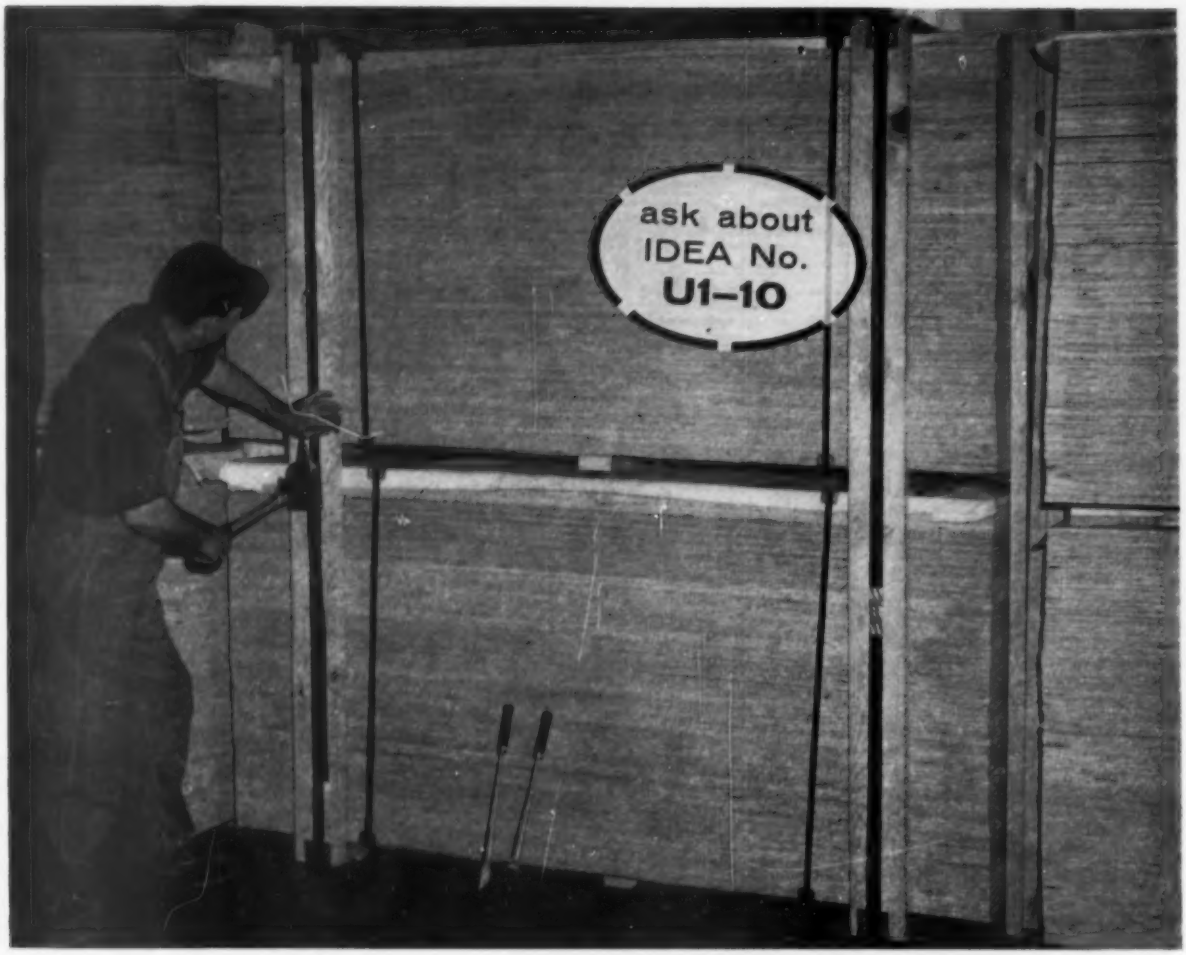
Overhead bars on the transfer unit push the partially-sized sheets off the rollers into the second machine. No handling is required. Spring-loaded, stock-aligning fingers help maintain perfect squareness. The extended slat bed gives firm, positive support for precision sawing and trimming.



Feed chain V-tracks are automatically lubricated, and chain link pins are greased by high-pressure gun. Operators appreciate the convenience of the push-button panel station mounted on a movable pedestal. It provides full control of machine when loading and during the entire operation. Master stop buttons are strategically located at five points on the machine for maximum safety.

and JOHNS-MANVILLE JM PRODUCTS profits with these additional *GREENLEE* advantages

- Close Tolerances Maintained At All Times
- Production Doubled
- Exceptional Resistance To Abrasive Mineral Fibers
- Low Maintenance Costs... Less Down-Time



Work with your AIM*. . . Potlatch Forests does . . .

Acme Steel Strapping unitizes, braces plywood

POTLATCH FORESTS, INC., Plywood Department, Lewiston, Idaho, uses Acme Steel Strapping for unitizing and car bracing quality plywood so it stays in top-grade condition from mill to receiver. (Idea No. U1-10)

Acme Idea Man Don Hughes helped Potlatch Forests solve its plywood packaging and shipping problems.

Potlatch Forests cuts carloading time, eliminates damage to loose panels on top of the load, stops shuffling of plywood during transit. Plywood is in neat, square packages, ready for fast unloading and efficient storage with mechanical handling equipment. Arrival condition of the load is as good as when it left the mill—no downgrading of panels due to damage received in transit.

***Work with your Acme Idea Man** and make sure you're getting the best ideas for packaging and shipping your products. Write Dept. LBU-117, Acme Steel Products Division, Acme Steel Company, 1025 Sixth Avenue South, Seattle 4, Washington. Also Portland, Oregon.

ACME STEEL **STEEL STRAPPING**

FILER & STOWELL

BAND MILLS

Filer & Stowell Built-in Features Mean More Profit to You

No band mill has ever been built with as sensitive a strain, simplicity of operation, rugged construction and ease of control as in a Filer & Stowell. You may pay less, but you cannot get the gratifying years of service that you get with a Filer & Stowell.

Give us an opportunity to prove that these profit-producing features are built into every Filer & Stowell band mill. Write for Bulletin 300, or have our representative call.

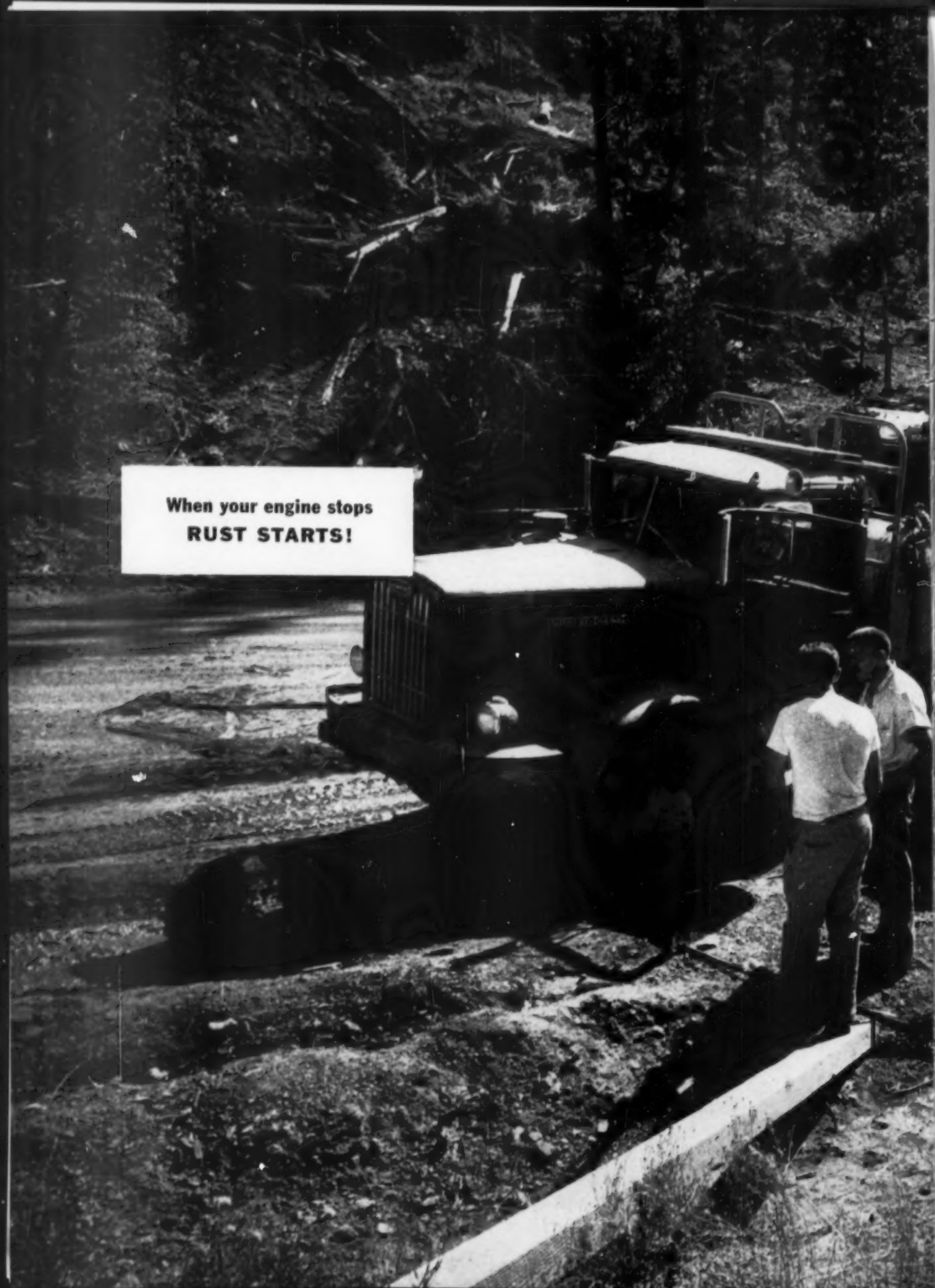
Sizes: 6-foot, 7-foot, 8-foot, 9-foot and 10-foot Single Cutting, or Double Cutting, and Variations in Column Height

FILER & STOWELL CO.

Since 1856

MILWAUKEE 7, WISCONSIN

World's largest builders of heavy-duty sawmill machinery


When your engine stops
RUST STARTS!

NEW TYDOL HD KEEPS ON WORKING WHEN YOUR ENGINE'S OFF!

As your engine cools, water forms in your cylinders to bring on your worst enemy—rust! But new, exclusive Tydol HD has an amazing additive that's impervious to water! It prevents formation of rust by leaving a protective film on cylinder walls and moving parts.

So on or off—your engine's safer with Tydol HD! And whatever fuel your engine uses—gasoline, Diesel, natural gas, propane-butane—there's a new Tydol HD Motor Oil to save you time and money.

ON OR OFF— YOUR ENGINE'S SAFER WITH NEW TYDOL HD!

For those jobs that call for LOCATION CHANGES!

HERE'S the rig that will cover the waterfront when it comes to meeting handling problems over a wide area. Northwest Truck Cranes come in two sizes—25-ton capacity and 35-ton capacity.

Your Northwest will serve anywhere around the mill. It will skid and deck in the woods. It will recover ditched loads along the haul road and it is easily converted by simply changing booms to a standard Truck Shovel or Dragline for road repair or general excavation. All Truck Cranes are not alike. Northwest Truck Cranes bring you a combination of advantages found in no other similar equipment.

It's smooth in operation. The Northwest Independent High Speed Boom Hoist gives you boom control the like of which you have never experienced before. It is power controlled both up and down and it operates independently of any other machine function without sacrificing either of the main hoist drums.

Removable counterweight makes the reduction of gross weight a matter of minutes and pivoted gantries are quickly raised and lowered under power for clearance.

The "Feather-Touch" Clutch Control assures ease of operation and gives the *feel of the load* without resorting to pumps, compressors, valves, tubing and other delicate mechanisms. Add to this a dozen other advantages that help you make money, many of them standard equipment. It is a high capacity, mobile package of lifting power.

And the carrier, remember, is Northwest designed —built to Northwest specifications for crane service and tested for Truck Crane operation. It incorporates Northwest features found in no other carrier.

Here is a combination that gives you the best in mobility and crane ability. See it! Ask about it!

NORTHWEST ENGINEERING COMPANY
1510 Field Building, 135 South LaSalle Street, Chicago 3, Illinois

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T25-14

significant industry news

$1 MILLION COLORADO SAWMILL . . . Production is scheduled in December at San Juan Lumber Co.'s new $1 million sawmill in Pagosa Springs, Colo. The operation will draw its timber from the Middle Piedra sale area where it has a contract for 44.9 million feet of timber, will have a capacity of 80,000 to 100,000 feet a day.

NEW SALES MANAGER AT PACK RIVER . . . W. F. (Bill) Stewart, vice-president in charge of sales for Pack River Tree Farm Products, will retire January 1, ending a long career in lumbering. He will be succeeded by Thomas S. Porter who has been general sales manager. Prior to becoming general sales manager earlier this year, Porter had been manager of the lumber sales division for about two years.

SOUTHERN MILL SETS IMPROVEMENT . . . Beadles-Justice Lumber Co. of Moultrie, Cal., has started an expansion program which will add a new sawmill, debarker and chipper to its present facilities. Beadles-Justice recently purchased the Hancock Lumber Co., Quitman, Ga., and plans to modernize and expand the sawmill and planing operations.

E. L. BRUCE COMPANY BUYS PLYWOOD PLANT . . . The Plywood plant of Atlas Plywood Corp. at Center, Tex., has been purchased by E. L. Bruce Company, hardwood flooring manufacturer of Memphis, Tenn. Bruce will operate the plant to produce plywood blanks for use in manufacturing oak laminated block flooring. Atlas operated the plant for the production of plywood and flush doors, turning out 2000 doors a day. Robert L'Donoghue will continue as plant manager.

JAPAN CUTS PLYWOOD EXPORTS TO U. S. . . . The Japanese MITI has amended a portion of its Law of Export and Import Transactions to check export of Japanese-manufactured plywood to the U. S. to an annual level of 650 million square feet. Japanese officials predicted an annual level of more than 720 million square feet if the previous pace was maintained. They also anticipated that the U. S. would move against the import of Japanese plywood if the Japanese government did not do so.

STRUCTURAL PANEL PLANT OPERATING . . . Structural Laminates, Inc., is now operating in Beaverton, Ore., producing a 4x4-foot CD fir sheathing grade plywood. Production of structural panels for roof, floor and wall construction will start in 1958. The panels will be available in various thicknesses and sizes. Principals in the firm include C. D. Johnson, Jr. and Chas. R. Wilson.

PERSONNEL CHANGES AT UNION LUMBER CO. . . . H. Pierson Plummer has been named plant manager for the Union Lumber Co. at Ukiah, Calif., succeeding John Gray who has been promoted to vice-president. F. W. Nelson becomes superintendent of manufacturing succeeding Plummer and is succeeded as mill sales representative at Fort Bragg by W. P. Staffler.

NATIONAL WOOD MERCHANDISING PROGRAM . . . The National Lumber Manufacturers Association has voted an appropriation of $25,000 to be used to develop a full scale, detailed plan of national lumber promotion designed to gain financial support of its regional association. At its annual meeting the NLMA also increased dues 1 cent per 1000 board feet of lumber shipped, boosting its total dues to 5 cents per 1000 feet. The dues increase must be approved by regionals. New officers of the group are N. Floyd McGowin, Chapman, Ala., president, succeeding Walter M. Leuthold, Deer Park, Wash., who becomes board chairman; and regional vice-presidents A. B. Hood, Anderson, Calif., Edwin R. Thomas, St. Louis, Mo., and Q. T. Hardtner, Jr., Urania, La.

A PLYWOOD SPECIALITY PLANT, Pre-Cut Plywood Corp., has been established at Petaluma, Calif., to produce handi-panels and special cut-to-size plywood units. Harold Ellingwood is president, Larry Wicklund of Fairhurst Lumber Co., San Raphael is secretary-treasurer. Products will include circular work and eccentric shapes.

NEW PERSONNEL DIRECTOR at Weyerhaeuser Timber Co., Tacoma, Wash., is Lowry Wyatt, formerly with Gerber Products Co., Fremont, Mich., where he was general manager of manufacturing.

A PLANNED PROGRAM OF FULL UTILIZATION of its resources, lands and facilities on both a short- and long-term basis is planned by St. Regis Paper Co. The firm recently established the new post of staff planning engineer and named Dr. Robert W. Reed to the position. Initial concentration will be on the development of a program for advantageous utilization of the forest resources and facilities recently acquired in the Pacific Northwest. Dr. Reed was formerly with St. Regis' subsidiary, Rhinelander Paper Co. where he was sales manager for converted papers at the time of his new appointment.

AN IMPROVED FISCAL PICTURE is reported by Puget Sound Pulp & Timber Co., which says its nine month figures nearly equal a year ago as the results of pickups in the third quarter. Net income for the third quarter was $781,725 compared to $710,722 a year ago. For the first nine months, net income totals $2.32 million, compared to $2.36 million a year ago. Ketchikan Pulp Co., in which Puget Pulp owns a 50% equity, had a net profit of $956,151 for the nine months, compared to $818,228 a year ago.

HENRY CLEPPER, executive secretary of the Society of American Foresters, has been awarded the Gifford Pinchot Medal for outstanding service to forestry awarded annually by the society. Clepper, who in 1957 completed 20 years of service to the society, was cited for his unique contributions to forestry through furtherance of the objectives of the society.

A TIMBER INSURING COMPANY has been established in Georgia by a group of timberland owners, will insure both merchantable and unmerchantable timber. It is anticipated the new company's coverage will tend to increase loan value of timberlands and establish a present value on unmerchantable-size timber. Damage surveys and adjustments will be made by registered foresters. The firm will insure timber for as high as $50 an acre, but applications are accepted only from counties under organized fire protection.

AN INCREASE IN PRODUCTION will occur at Jaymar Mill, Inc., Walla Walla, Wash., as the result of remodeling work now underway. Production will be upped from 55,000 to 100,000 a day. A circular saw is to be installed and equipment re-arranged. The mill recently installed a barker and chipper and is shipping chips to Oregon Fibre Products, Inc., Pilot Rock, Ore., and Potlatch Forests, Inc., Lewiston, Ida.

PULP PRODUCTION AND CONSUMPTION in the United States are within 2 to 3% of 1956's records. Exports picked up in September. Inventories at the end of the month were less than 5% above stocks on hand a year ago. Production in the first nine months of 1957 totals 16.3 million tons, compared to 16.66 million tons in the like 1956 period.

UHL RETIRES AS TECO PRESIDENT . . . Harry G. Uhl, president of the Timber Engineering Co., an organization he helped form 25 years ago, has retired after 37 years' service to the lumber and wood using industries. Uhl was one of the group's original directors. He earlier served as assistant secretary and manager, and later manager of the National Lumber Manufacturer's Association, and as secretary and manager of American Forest Products Industries, Inc.

SHAKERTOWN CORPORATION becomes the new name of Perma Products Co., Winlock, Wash., on January 1. The firm manufacturers red cedar shakes, sidewalls and related products. President Frank S. Barker says the name change was for added emphasis on marketing.

NEW FIELD PROMOTION DIRECTOR at the Douglas Fir Plywood Association is Stanley A. Taylor who has served as assistant field promotion director since 1955. He succeeds Joseph Weston who is retiring. Taylor will direct the activities of a staff that numbers 34 men.

WESTWOOD PLYWOOD CO. at Independence, Ore., has been sold to Cecil Briles, lumberman of Detroit, Mich., who plans to reopen the plant which has been idle since last year. The plant is a core stock operation with a capacity of 100,000 square feet a day. It was built by Leonard Gilley, Parker Gies and James Robertson. Briles operated the C-O-R Mill in Detroit.

O&C TIMBER SALES ARE LAGGING in western Oregon, are down more than 10 million feet in volume and more than $1 million in value for the period of July-October. Green timber sales are down a little over a million feet; salvage sales are off nearly 9 million.

C. DEWEY ANDERSON, who has been active in the logging industry for half a century, has retired although he will continue in a consulting capacity with offices in Vancouver, B. C. He is now busy in the construction field and his Fleetwood Logging Co. is headed by Graeme King of the Fullerton Lumber Co. Dewey Anderson attended the recent Logging Congress in Seattle, of which he was president in 1945, with his father P. B. Anderson who at 92 is probably the oldest living logger in the Pacific Northwest.

CHAS. H. INGRAM, executive vice-president of Weyerhaeuser Timber Co., will retire January 1, but will continue to serve on the company's executive committee and board of directors. After the first of the year, the company's top management will consist of the president, F. K. Weyerhaeuser, four major staff executives and four major operational executives. The position of executive vice-president will be discontinued.

PURCHASE OF ABERDEEN PLYWOOD CO. is the goal of a drive underway in the Grays Harbor, Wash., area by a group of civic leaders. Goal of the drive is $680,000. Mon Orloff, manager of Mt. Baker Plywood Co., Bellingham, is one of the major figures in the drive, along with J. Collins Lloyd, Seattle plywood broker. If successful in the drive, the new owners are eyeing a production of special face panels . . . hemlock, cottonwood and alder.

SCOTT PAPER CO. has certified the Scott-Skagit Tree farm covering 100,000 acres in Skagit County, Wash. The area includes a large acreage of virgin old growth timber and the largest stand of prime pulp-type timber under private ownership in the northern Puget Sound area.

BACKING FOR NATIONAL PROMOTION OF LUMBER developed at the annual meeting of the Supreme Nine of Concatenated Order of Hoo-Hoo when it was recommended that Hoo-Hoo clubs take an active interest in the industry effort in national promotion of lumber and set up committees on wood promotion. The group also recommended cooperating with the recently organized National Lumber Council.

OWEN W. BENTLEY is now in charge of all wood supply activities in the Columbia River area for Crown Zellerbach Corporation. Formerly chief log buyer for the area, he now takes the title of manager of Columbia River Wood Supply. He is assisted by Charles L. Morey.

SHASTA MILLS, INC., has sold its partially completed sawmill north of Mount Shasta, Calif., to Nettleton Forest Products, Inc., Redding, Calif. Nettleton also purchased timber on the Soda Creek tract which is owned by Martin Cooper, Mount Shasta, H. D. Dollar, Glendale, Ore.; H. B. Cooper Jr., Portland, Ore.; William Johnson, Grants Pass, Ore.; and Robert Hissong, Calif. Cooper and Dollar are owners of Shasta Mills, Inc.

J. R. PHILBRICK has been promoted to a staff position in the division of fire control in the regional office of the U. S. Forest Service in Portland, Ore. He has been serving as staff officer at the Siskiyou National Forest headquarters in Grants Pass, Ore.

TREE FARM CERTIFICATIONS by the Industrial Forestry Association to date in 1957 are the highest on record, 527,663 acres in western Oregon and Washington. The total acreage for the area totals 5,359,340, about half the industrially-owned forest land in the region.

INTERNATIONAL PAPER CO. reports sales and profits down in the third quarter and for the first nine months of the year. In the third quarter, earnings were $16.6 million and sales $232.7 million. This compares with $19.9 million and $239.9 million in the same period of 1956. Nine-month earnings of $53.9 million and sales of $715.5 million compare to $67.3 million and $731.4 million in the like period of 1956.

LORAN L. STEWART has been elected president of the Associated Forest Industries of Oregon, succeeding A. J. Glassow, Bend, Ore. Stewart is president of the Bohemia Lumber Co., Culp Creek, Ore.

CLIFFORD CRISPIN has been appointed vice-president in sales of MacMillan & Bloedel, Ltd., Vancouver, B. C. Crispin joined the H. R. MacMillan Export Co. as a salesman 31 years ago; has since held many positions including his most recent vice-presidency of the pulp division. He was assistant timber controller for Canada during the war.

COMPLETE FORESTRY INVENTORY in Commonwealth countries was stressed at the 7th British Commonwealth Forestry Conference recently concluded in Australia and New Zealand. It was recommended that government should place administration of forest resources on all publicly owned lands not yet dedicated to forestry under forest authority for purposes of orderly management. Adherence to sustained yield principles and construction of more and better roads were also urged.

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All Motor Gearmotor

StraitLine Reducer Double Reduction Type RD

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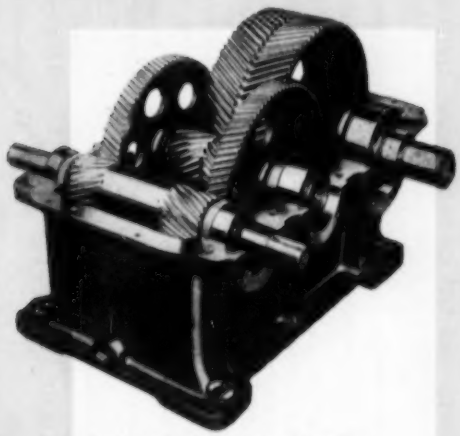

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50 YEARS of pace setting FIRSTS THAT SPELL PROFITS FOR LUMBER MANUFACTURERS

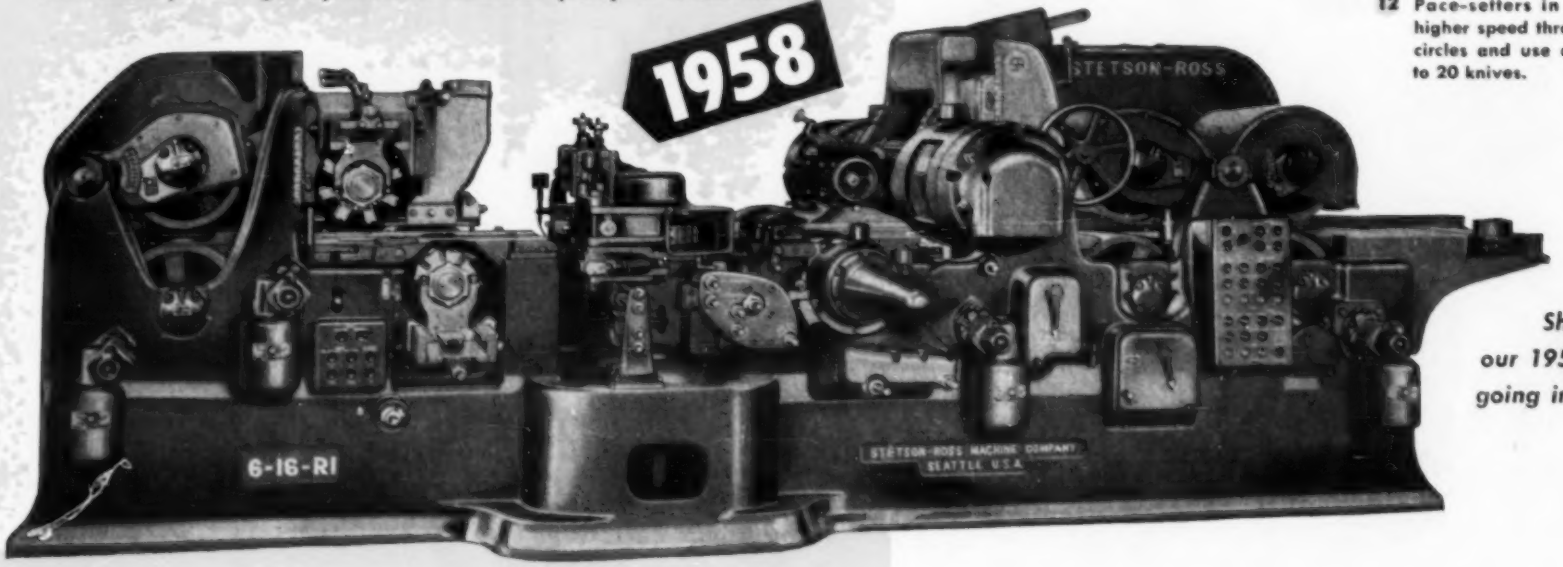
In 1907, when the 12 Softwood States of the West were producing less than 9-Billion board feet annually, George Stetson, a practical lumberman, and Harry Ross, brilliant Mechanical Engineer, built the FIRST Stetson-Ross machines. These were combination Planer-Matcher-Timber Sizers, the forerunners of the 4-roll matcher pictured above.

From the start, Stetson-Ross machines have featured "cartridge" profilers built-in ahead of the outfeed rolls, and taper-bored "quick-change" sideheads. Today "Stetson-Ross #1 taper," the larger #2 and the smaller #0 have become "standard" wherever taper-bored heads are used.

The 12 Softwood States are now producing more than 22-Billion board feet annually and a major volume of the finished lumber of the West is moving through Stetson-Ross machines. This is why our 50 years on the frontiers of progress assures you of highest production—maximum quality—at lowest cost . . .

CHECK THIS LIST OF PROGRESSIVE STETSON-ROSS "FIRSTS"
They signify how your profit-squeeze can be re-shaped for wider margins

1. Tapered side spindles.
2. "Cartridge" quick-change profile units.
3. Profilers built into machine, not trailing rolls as an attachment. The outfeed roll clears stock through all cutterheads including profilers.
4. First planer-matchers designed completely for direct motor driven, ball bearing cutterhead units.
5. Largest, heaviest, most productive planer-matchers in the world—our Model 6-16A1—more than 30 of these are in use—producing up to 1200 lineal feet per minute!
6. First sealed-in-oil feedworks.
7. First machines with electric cutterhead braking.
8. First machines with electric hoist motors for rapid setting of top cutterheads, outside head and top feed rolls.
9. Originators of the 2-way thicknessing principle for lumber conservation.
10. First to use "clam-shell" quick-change feed rolls.
11. First to use the water-cooled guide—hollowed to permit free circulation of cooling water.
12. Pace-setters in the development of higher speed through increased cutting circles and use of surfacing heads up to 20 knives.

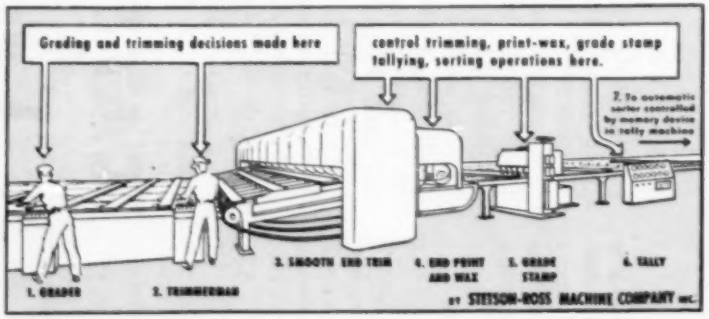


Shown at left is our 1958 Model, just going into production

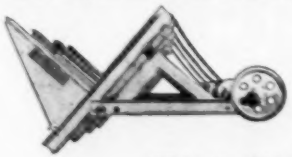
AMERICA'S MOST COMPLETE LINE OF PLANING MILL MACHINES

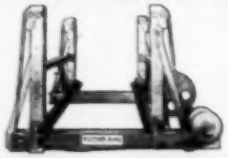
PICTURED ABOVE is the new 6-16-R1, another of the "Big Planers for Big Mills" heading up the complete line of Stetson-Ross planers *for mills of all sizes*. This machine features 16" diameter feed rolls with proportionately heavier shafts, bearings and helical steel gears. Up to 150 HP drives the top cylinder at feed rates of 500-1200 FPM or more. A complete line of Pre-surfacing and Blanking machines are available. Four different models of Ball Bearing Feed Tables provide matched feeding for fast or slow machines.

As leaders in planing mill automation, Stetson-Ross also builds Random-Length Smooth-End Trimmers and Printers—optional "memory device" controls for trimming, printing, grademarking, trade-marking, tallying and sorting.


Grading and trimming decisions made here
control trimming, print-wax, grade stamp tallying, sorting operations here.
1. GRADER
2. TRIMMERMAN
3. SMOOTH END TRIM
4. END PRINT AND WAX
5. GRADE STAMP
6. TALLY
7. To automatic sorter controlled by memory device on tally machine
BY STETSON-ROSS MACHINE COMPANY INC.

To maintain the new high production-rate maximums of Stetson-Ross Matchers, we have developed a complete line of servant machines: Tilting and Vertical Hoists, Reloaders, Drop and Lift Gates, Lift Skids, Mechanical Pullers, Roll Cases, Belt Conveyors, Kiln-load Unstackers, Deck Conveyors and other special engineering that assures you of *continuous* production at lowest handling cost.





Tilting and Vertical HOISTS

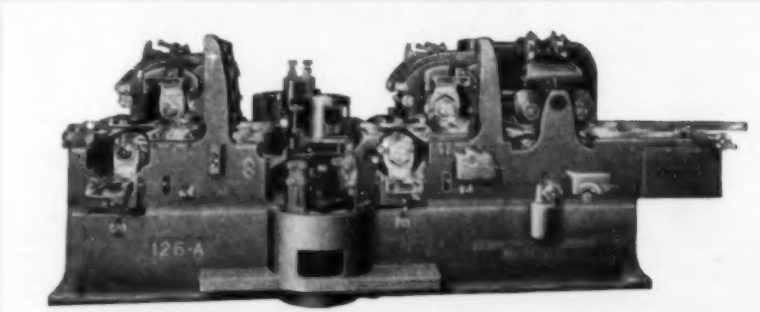
Mechanized Lumber PULLER

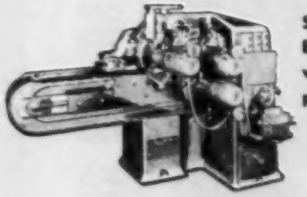
HULA CUT-OFF SAWS

Trimming equipment is another specialty of Stetson-Ross: Single Cut-Off Saws, Bundle Trimmers, Pulsating Refuse Saws.

Belt Conveyor TAKEWAY

This 126-A heavy-duty "cartridge" type moulder rounds out the Stetson-Ross line of machines—4, 5, or 6-heads, "cartridge" yokes 4", 8", or 12" wide, 15 to 50 HP on any head. Known as the "Universal 6-Header" it runs stock from rough to finish with a single pass, presurfacing unnecessary.





Stetson-Ross End-Matchers for flooring and End-Splicers with Glue Applicators for salvaging "shorts" are installed wherever precision end-matching is required.

No machine is better than the maintenance of its cutters, so Stetson-Ross offers a complete line of cutterhead grinders and jointers.

The above describes our line of equipment, developed through more than 50 years of specializing in Planing Mill methods and machinery with progressive engineering and the enthusiastic cooperation of the leading lumber mills. We appreciate the assistance of our lumberman friends in helping to make "Stetson-Ross" the mark of quality in the Planing Mill, and we invite you to continue to call on us whenever you have planing mill production problems.

Write, wire or phone, MAin 4188

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MACHINE COMPANY INC.
SEATTLE 4, WASHINGTON

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HANDIEST MACHINE YOU CAN USE AROUND YOUR SAWMILL!

Equipped with quick-change attachments, a Traxcavator* is master of many jobs in the yard or in the woods!

No other machine can do so *many* jobs so *efficiently* as a Caterpillar Diesel Traxcavator. Equipped with quick-change attachments, this all-purpose tool can handle chore after chore—carrying logs, stacking and loading lumber, maintaining the yard, building roads, and many more. Whatever your requirements, you can always keep a Traxcavator busy.

Clarence H. Fiske, for example, keeps this No. 955 busy all year round with only one attachment. Equipped with a log and lumber fork, it handles logs and lumber 8 hours a day, 5 days a week, in his mill in West Stephentown, N. Y. Daily production averages 8000 bd. ft. of hardwood sawed to grade. This mill, one of two owned by Mr. Fiske, is powered by a CAT* D342 Engine. For his other mill, he has a D318. He says: "I standardized on Caterpillar because of the good, fast service I get from my dealer. The No. 955 is a fine machine. It gives me economical, dependable operation. It's very maneuverable—I can take it anywhere I want it to work."

Besides the No. 955 rated at 70 HP, there are two other Traxcavators—the 100 HP No. 977 and the 50 HP No. 933. Each is *balanced* from the ground up for maximum efficiency. Each features quick-acting hydraulic controls, high reach without strain and tilt and lift levers positioned for easy, one-hand operation. Each is available with such attachments as log and lumber fork, bucket and bulldozer. And each, pound for pound in comparison with other units, delivers more lift, faster lift and more production!

Your Caterpillar Dealer, who backs you round the clock with fast service, will be glad to help you select the Traxcavator that pays off best on your operation. Name the date—he'll demonstrate!

Caterpillar Tractor Co., San Francisco, Calif.; Peoria, Ill., U. S. A.

CATERPILLAR*

*Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.

WANTED—
THE HARD WORK

COVER PHOTO

ILLUSTRATIVE of some of the typical business machines used by various size lumber firms, the cover depicts the growing importance of business machines in the forest products industry. The obtaining of pertinent information upon which to base business decisions and sales policies are having to quicken pace to keep close to the rapidly increasing pulse of our advancing economy.

Machines shown in the top and bottom left of photo, are Univac computers at The Diamond Match Co., California operations. Top right, are I.B.M. Cardatype, electric typewrite and accounting machines at Simpson Logging Co., Shelton, Wash. Bottom right is Burroughs-Ball & Howell combination Microfilmer for viewing and recording of microfilms of records at Brooks-Scanlon, Inc., Bend, Ore.

Industry Meetings

December

Southern Sash & Door Jobbers, winter meeting, Roosevelt Hotel, New Orleans, La., Dec. 2-4.

American Society of Mechanical Engineers (Wood Industries Division) Hotel Statler, New York City, N. Y., Dec. 5.
Olympic Hotel, Seattle, Wash., Dec. 10-13.

Western Forestry & Conservation Association, Olympic Hotel, Seattle, Wash., Dec. 19-23.

1958

January

Southern Pulpwood Conservation Association, Dinkler Plaza Hotel, Atlanta, Ga., Jan. 14-16.

American Institute of Timber Construction, San Marcos Hotel, Chandler, Ariz., Jan. 20-24.

Appalachian Hardwood Manufacturers, Netherland-Hilton Hotel, Cincinnati, Ohio, Jan. 22-24.

Northwest Hardwood Association, Quarterly meeting, Portland, Ore., Jan. 25.

February

Governors Industrial Safety Conference, 8th annual, Fairmont Hotel, San Francisco, Calif., Feb. 6-7.

Sierra-Cascade Logging Conference, Fairgrounds, Anderson, Calif., Feb. 13-15.

National Wooden Box Association, San Francisco, Calif., Feb. 19-20.

Farmhoppers Day, School of Forestry, Oregon State College, Corvallis, Ore., Feb. 22.

Willamette Valley Logging Conference, Eugene, Ore., Feb. 27-March 1.

March

Southern Forestry Conference, Forest Farmers Association, Monroe, La., March 27-28.

National Association of Commission Salesmen, Sheridan-Cadillac Hotel, Detroit, Mich.

April

Northeastern Loggers Congress, 4th annual Mark Twain Hotel, Elmira, N. Y., April 20-23.

May

Redwood Region Logging Conference, Ukiah, Calif., May 23-24.

A New Dimension For The Lumber Industry

By Walter S. Johnson as told to THE LUMBERMAN

Eminently qualified to speak on the lumber industry and business machines, WALTER S. JOHNSON is board chairman of American Forest Products Corp., San Francisco, and board chairman and president of Friden Calculating Machine Co., San Leandro, Calif. American Forest Products operates sawmills, box plants, dry kilns and wholesale activities. Friden produces business machines in plants in San Leandro; Rochester, N. Y., and Wageningen, Holland.

More than ever before in the history of the lumber industry, management needs facts. It needs new information daily to help merchandise its products and to help meet competition.

Keen competition from wood substitutes, diversification of products, mergers and combination ownerships have placed a premium on fingertip facts. New demands in accounting, ever-increasing government reports, production statistics, personnel accounting research. These and many other areas of managerial concern have created a whole new spectrum of responsibility which can be satisfied only with up-to-the-minute facts and analyses.

It is not enough that management should know the cost of producing lumber. It must also understand the cost of gathering data which provides this information. This means that factory costs are no more important than the cost of an office; that savings are just as important in gathering data as they are in production.

Modern lumber operations must have current statistics and have them in a form immediately available. Any operation failing to have such vital information is handicapped in marketing of its products.

Each year, the areas where costs may be cut grow fewer. Management must be alert to spot these areas. Today's electronic, semi-electronic and mechanical business machines can provide them instantly in broad areas of application. They may also marshal facts which point up areas of action.

The lumber industry cannot afford to be old fashioned in its quest for business. It must take advantage of today's tools. Business machines are tools and reports they compile are tools. A perpetual inventory, for example, can mean savings. A lumberman who, through business machine data processing, always knows what he has on hand, can afford to carry less inventory and free money for other uses.

The matter of inventory does not apply only to pieces of lumber. It applies to sizes, grades and species. It applies to logs, timber and acreage. Vast amounts of money are spent annually on mill and wood equipment. It is vital that management know exactly where it stands on costs, depreciation and operating efficiency of such equipment. Machine processed information can be quickly assembled.

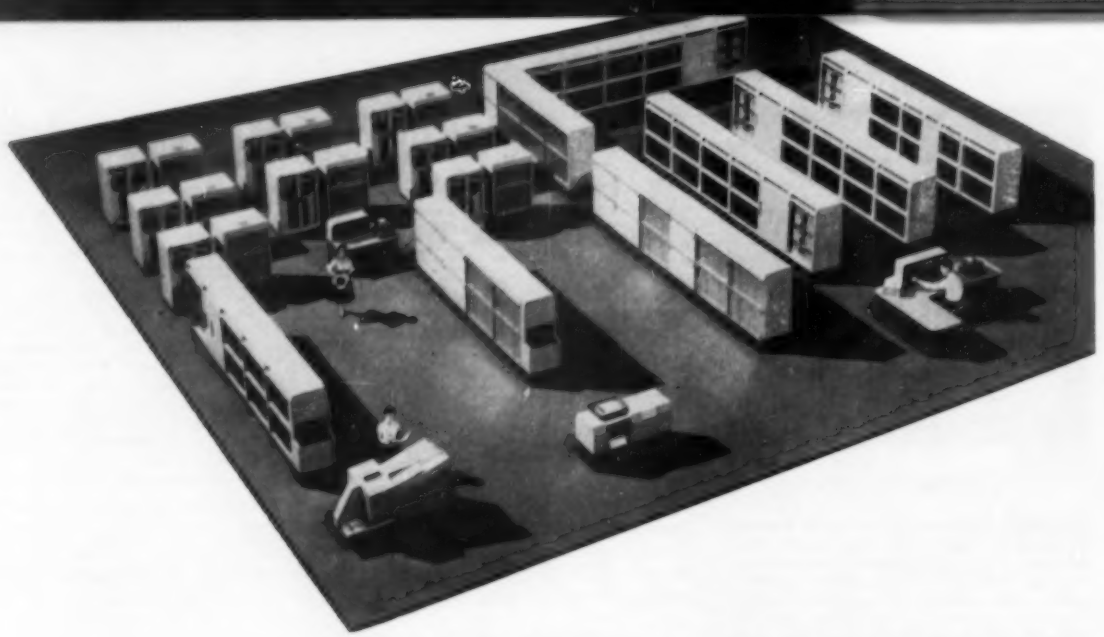
Advantages accruing to the lumber industry through use of business machines are not limited to large companies. In fact, with today's business climate in the lumber industry it behooves the small operator to be more demanding in his knowledge of financial facts and cost cutting.

In relation to the size of his operation, the manager of the small company can provide himself with office appliances which will help him. To the extent that he wisely invests in office machines that will do the type of job an operation demands, he can directly tackle cost and production problems.

The forest products industry uses our one renewable natural resource. Wise management of this resource gives the industry an inherent advantage. Couple this advantage with the capabilities of business machines to provide data on which to plan, harvest, expand and diversify, and there is created a combination which, with good merchandising, can forcefully meet any competitive challenge.

Office appliances have added a new dimension to the forest products industry. Speedier and more efficient service for customers have evolved. Management is coming into possession of new sets of related facts which tell about costs, production, product quality and economic outlook.

It is logical for a good manager to authorize purchase of a machine for his sawmill or logging operation that will pay for itself in a year and a half. It is equally important that he should authorize investment in office machines which will pay for themselves in equal or less time.



BUSINESS MACHINES

are helping the Forest Products Industries

A western lumber company is currently investing $3 million in a new planing mill. Included in the multitudinous planning detail was the number of sorts to make on the sorting chain. But, how many were needed?

It was quickly determined that the best way to find out was to see how much of what classifications of lumber had the company sold in the past year. This was easy, all that had to be done was to go through all the thousands of invoices and add up the volumes by classification. An easy solution in all but work-volume.

Machine accounting was the answer. The company key-punched data from the invoices—a project requiring several weeks—and the cards were fed to an electronic computer which had the answer in just under two hours.

This is machine accounting at its shirt sleeve best. (The company now has installed equipment that permanently cards every order so the same study could now be made in just two hours without the several-week key punching time.)

Automation came fast to production, but it was somewhat slower in reaching office procedures. When office automation did come (and it isn't here completely yet), it came with such a rush as to make the normal businessman's head swim with its highly-touted electronic brains and auto-robot methods.

The high-speed computers and other machines are simple mechanical and electronic aids. Their growing size and incredible operating speeds have developed a legend of mysterious complexity.

The most common type of computation in present forest industries is the adding machine and desk calculator which often are used to prepare information for the next most used—the punch card systems which utilize a 3 x 7-inch card which has spaces for from 800 to 1000 individual punches.

In solving a problem or preparing a particular report, a plan is made to best utilize these punch-spaces and information is coded into them by punching out the proper holes on a keypunch machine. They are then sorted at rapid speeds by use of electrical circuits set up on a board and inserted into a machine by a "programmer" who plans the operation. Other machines are used to add or take information from the cards, all planned by wiring the boards.

A logical step from the punchboard systems was the electronic computer or "electronic brain" as it has been popularized. This is a greatly misleading term because machines cannot think. They are told what to do by the programmer who plans the projects. They do simple step-by-step procedures at such rapid speeds that complex problems are solved in a flash.

These computers work on an either-or basis. Every single step in their solving of a problem is a yes or no. "Is A larger than B? If it is, add to D. If not store in bin 342." This is the language of the electronic computer.

Computers can be fed data through the ordinary punchcard or at faster speeds through punched paper tape or magnetic tape.

The paper tapes can be punched as a by-product of normal accounting procedures, thereby providing permanent records for later computing. These same tapes can also be fed over teletype networks or mailed to central accounting offices for current report production.

One national concern has all its operations tied together by leased wire to keep current production and inventory records. Every transaction made is automatically transmitted to the main computer where it is instantly recorded and its effect on all branches is automatically evaluated. Branches through remote keyboards can "query" the main electronic storehouse on any phase of the operation with a near-instant automatic typewritten reply.

Although these large installations are the most striking and impressive, a company need not be large to enjoy the benefits of machine accounting

(*Continued on page* 29)

ORDERLY arrangement of machines increases efficiency in St. Paul's tabulating department. Left, IBM 402 tabulator; 523 summary punch and 077 collator, center; 082 sorter, right. Room air conditioned, foam rubber foot pads.

Comptroller for one of the leading lumber firms gives management's viewpoint on adaptation of business machines to accounting procedures.

Business Machines

A Real Tool for Management Use

Any manager of a company who is curious about business machines or is planning a future installation will benefit from remarks of R. E. Earley, comptroller and assistant treasurer, St. Paul & Tacoma Lumber Co., Tacoma, Wash., a subsidiary of St. Regis Paper Co. For four years, his company has operated an outstanding tabulating department serving 1500 employees in main office, sawmill and retail yard in Tacoma, logging operations at Kapowsin and Mineral and a large plywood plant in Olympia.

"Based on our experience, a company should spend a year's time in preparation for any large-scale mechanization of office and accounting procedures," according to Mr. Earley. "The first step is to know your problem and learn what is to be done. Secondly, you must confer with the machine manufacturers, to look over the field of equipment so you get a good picture of what's available. Finally, you should allow for delays on delivery of the machines themselves.

"Maximum results should not be expected within the first two years. Above all, top management should not be too impatient. Personnel economies will take three or four years.

"*Mechanized* accounting is a real management tool. It is actually a new and fresh aproach. It gives management more information about the business than they ever had before. Some office functions are natural, such as payrolls and accounts payable. Other jobs require considerable time and study to set up. Once you've decided to go ahead, lay out a broad framework of what work can be done.

"We have had to do much research and procedure writing. The first step is to write the overall procedure; then follow it up with the details. A possible weakness in any system is the lack of proper technical procedure.

"Business machines save time and work in various ways. For example, in compiling payrolls by machine, unit managers don't have to worry about check-signing. We have relieved the superintendents and timekeepers of most of their clerical work.

"A company should not try to duplicate what was previously done by hand or by the old methods. The accounting department must impart the information to other departments for smoother, more efficient operation. The machines lend themselves to volume operations rather than to doing a lot of little things that are done as well manually.

"Our machines are leased. This seems to be better than tieing up large sums in capital investments. While some machines are basic and do not become obsolete, there are rapid improvements taking place in the newer machines today, and we want to stand ready to acquire new ones which will do our jobs faster and better.

Basis for decisions: "With tabulating equipment, it is possible for a company to determine whether it would be feasible to build a new wood-using plant based on future growth and timber supply.

"The true success of a tabulating department depends on the wide use of the system by the various departments. Tabulating is actually a part of accounting, and the accounting department is a service department. Its job is to provide usable information to the rest of the organization. Here again, it is evident that new jobs will be found for tabulating equipment—

(*Continued on page* 29)

ON IBM ACCOUNTING machine Model No. 402 at St. Paul & Tacoma, monthly sales analyses are automatically typed out on a Ditto stencil. No retyping needed if many copies are desired. Accounting machine (No. 402 Tabulator) will make five carbon copies of a report.

SALES ANALYSIS is one of most useful reports. It tells sales amounts according to species and grade. Product analysis tells the management how much it costs to manufacture plywood and lumber products of any grade, thickness or size. Beauty of these reports is that they're available while information is still hot.

CONTROL POINTS are essential to success of system and are integral parts of the various procedures to be followed. Thus errors, if any, are discovered before they can be compounded. **PAYROLLING** by tabulating equipment has helped reduce the workload in the field offices. Less overtime and fewer assistants are now required.

BURROUGHS No. 500 bookkeeping machine is one of two units. Operator is making entries. Labor distribution cards are in rack at right.

MICROFILMER and viewer are Burroughs-Bell & Howell combination. Uses 16mm film. All company records are now microfilmed and filed.

Speeding Operating Reports

An entire Burroughs machine accounting installation at Brooks-Scanlon, Inc., Bend, Ore., supervised by office manager Marc Boles, has resulted in the most rapid and detailed reports to management. The modernization also cut the accounting department costs nearly in half with a centralized department of eight now keeping the company books.

"After all," Boles says, "the object of accounting is to get an operating statement to management as soon as possible. We are now able to get a complete operating report duplicated and distributed by the sixth working day following the last of the month."

This report is comprised of more than 100 pages and includes the most detailed information on production, sales, logging, sawmill and overhead in addition to summaries for rapid digesting of the report. Costs are listed to the penny with breakdown of all costs and expenses on a per-thousand feet of lumber cut basis, so that close cost studies can be made.

"Since our logging costs vary so much between operating areas, working on both our own and on Forest Service sales, we must be accurate in keeping separate records," Boles explains.

"This resulted in somewhat of a problem at first. When we first instituted our system two years ago we called all the foremen together and explained what we were trying to do in our close cost-accounting. We explained that it would require more accurate information on their time sheets. We could not sit in the office and tell whether a man was pioneering road or skidding logs with a tractor."

"It took about six months for the foremen to become completely oriented to the system. When they began to see the use of the extra information, which consisted primarily of charging mens' time and supplies to the job performed, they became quite interested in their costs. This interest has been of material help in lowering costs."

Daily operating reports are distributed by 10 a. m. of the day following. These are distributed at all levels from the general manager to the foreman and include logging and location of logs, sawmill cut, orders and shipments, employment, lost time, and income and disbursements. In addition, there are daily log production records, planer production and mill scale summaries duplicated and distributed to appropriate personnel.

FRIDEN calculator does preliminary work for bookkeeping machines, checks time, scale.

KEY TO the mechanization are the three Burroughs 500 Sensimatic accounting machines. One is equipped with a Cardatape system for punching tape as a by-product of the normal accounting. The accumulating registers in these machines together with their ability to produce and calculate two or more reports simultaneously have made the program possible.

The Burroughs Sensimatics are set up with wiring panels to automatically space in printing the required reports and to accumulate the right totals in the right places. These panels are prewired for such functions as vouchers, accounts payable, payroll, computing various taxes and compiling year-end reports. As in all of the machine operations, the quarterly and year-end reports are automatically balanced in the machine.

TIME SHEETS as they come in from the foremen are hand-written, they are checked for totals. In the case of cutters, who are paid on a scale basis, the scale is also entered on their time slip and computed for pay.

On the accounting machine, the employee's earning ledger is inserted alongside the check for payroll computation. The machine computes net pay in addition to the printed hours worked, gross earnings and deductions on the earnings ledger. A total to date is carried on this ledger sheet, one for each employee. In this way, the year-end reports are available immediately after the last payroll.

As the machine is printing each check and posting the earnings ledger, it is carrying overall totals as an overall check on each operation. It is always balanced. After the checks are printed, labor distribution is made for cost accounting and deductions are entered on the deduction ledgers.

The labor distribution cards for cost accounting are kept in racks for easy access and the labor distribution cards are sectionalized so all three machines can be used at once. All checks and forms are pre-printed by Adressograph equipment.

Boles plans his work to get the highest production from the units. As he says, "We like to keep the machines right square in the cut where they do the most good."

Again, in each of these distributions, the machines are keeping running balances and balancing to division, so that in the case of a bookkeeping error, which is practically impossible with the system, there are less records to check. In addition, all journal entries are balanced so the ledger is automatically balanced when these are entered.

SALES CONFIRMATIONS are typed on duplicator carbons and copies of these are sent to the yard so that even the lumber carrier operator has a copy of the order. Everyone particpaating in the shipment has complete information.

A tally board is used on the shipping dock. The figures are checked in the office and then entered on a Burroughs 235M biller which calculates footages and carries totals as it prints the invoice. From the invoice, the accounts receivable and statements are printed on a side-by-side operation in the Burroughs unit.

Mechanization in Brooks-Scanlon's bookkeeping has resulted in elimination of the bank deposit slip as a separate entity. A carbon copy slip from the cash receipts ledger is used as the deposit slip.

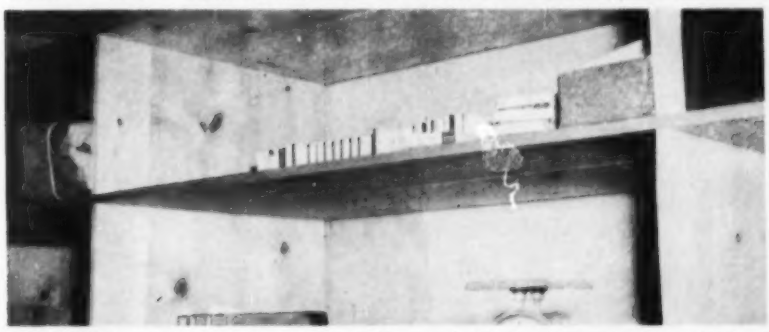
At the end of the month posting is made to the customer account distribution. This is done on the Burroughs unit, with the Cardatape attachment which cuts paper tape as a by-product. These tapes are sent to the IBM service bureau in Portland where cards are automatically cut from tape and a customer sales analysis is made, along with an analysis of sales by distributors.

PLANNING SORTS by using the service bureau IBM 650 machine, was a study made last year for the new planing mill now under construction. This was before the installation of the Cardatape and it was necessary to key-punch the information from the previous invoices. Three weeks of key-punching were required with two hours of calculating on the 650 unit. In this case it acted as a giant accumulator accumulating volumes of each of the infinite length-width combinations obtained from the shipping invoices.

MICROFILMING: In addition to the actual accounting, Brooks-Scanlon has also streamlined its files through the use of a Burroughs—Bell & Howell microfilming unit. They are trying to keep all their records currently microfilmed. When filming was first started 23 1½-ton truckloads of records were filmed and destroyed. This back-log occupied the entire office attic. A small shelf in the vault where the 16 mm film rolls are stored replaces this vast volume of records.

Boles says the filmed records are actually better for access because it is faster to run through a roll of film than to dig through a whole storage file. Old files also tend to become dusty and dirty to handle. He has found that once a record is three months old, it is seldom used anyway. Some records, such as time sheets, are required to be maintained in the original for five years.

OTHER EQUIPMENT used by the accounting department includes Standard electric spirit duplicator, an A. B. Dick electric mimeograph, Friden desk calculators, and Royal and Underwood electric typewriters.



MICROFILMED records are shown on top shelf in vault. Replaced 23, 1½-ton truckloads of records that required an entire room. Records are easily accessable at any time.

"The only reason for reports is to help people make decisions. The mechanization of accounting is enabling us to get these reports fast, while they are most valuable," Boles concludes.

Another difficulty in the bureau is that there are no overall balances to check for accuracy. As an example, in bank accounting overall balances will detect an error within the accounting.

As the machines are not infallible, this does give a mistake occasionally in bureau work, averaging one mistake every 300,000 logs. This amounts to about a one-log mistake per month, a ratio infinitely smaller than that encountered in the hand-calculating methods.

Business Machines Help Forest Products

(*Continued from page* 26)

and it need not have capital invested in machines.

Anytime repetitious work is being done in volume, machine accounting should be considered. For companies not justifying the installation of equipment, there are service bureaus located throughout the country (see list elsewhere this section) which will do computing jobs on a piecework or retainer basis.

All accountants seem to agree that the object of accounting is to prepare reports on which management can base decisions. Obviously the more current these reports—their greater value. Thus—the benefits of rapid, accurate, machine accounting.

Tool for Management Use

(*Continued from page* 27)

when the various other departments understand what is possible. But the other departments should understand the potentials of tabulating as a tool of management. They need to work closely together."

ADEQUATE space is a problem when setting up installation. It will take a good-sized room. Machine heat raises room temperature from 5-10°; air conditioning is desired. Foam rubber floor pads in front of machines help reduce operator fatigue.

Files Color-Keyed In Variadex Unit

• Unlimited expansion is possible in the color-guided Remington Rand Variadex files. Each letter of the alphabet is subdivided into five "breaking points" established by the second letter of each name. These are keyed by the colors orange, yellow, green, blue and violet. The system has alphabetic caption guides.

AT KEY PUNCH machine, operator places the master product card in hopper ahead of blank tally and summary cards before punching into latter two cards, length, price per piece, etc.

Automatic Audit of Lumber Shipments

Auditing and billing of outbound shipments is now being done automatically with guaranteed accuracy in the machine accounting department at Weyerhaeuser Timber Company at Longview, Washington division.

The method whereby this has been accomplished is the simultaneous calculation of invoice extensions and the verifying of the tallyman's computations. These latter are the shipment figures computed by the tallyman as he checks the order out of the loading shed.

The tally sheet (or "hard copy") is a form used by the tallyman to fulfill the order. In addition to the usual identifying information, it contains a description of the lumber ordered and a tabulation of quantity ordered, both in pieces and feet.

AS RECEIVED by him, it is an order. On it, as the various components of the shipment are set out, he tabulates them according to bundle size. He then obtains a total of pieces packed and of the length of all pieces and checks these against the corresponding order figures.

Since the tallyman's calculations form the basis of billing and since they are an actual tally of what was shipped to fulfill the order, it is vital that they be checked and verified as soon as possible. The two-way calculation of the invoice extensions and the tally verification is set into automatically accurate motion with pulling and checking of punched cards.

When the order is ready for shipment, the tally sheet is sent to the IBM accounting department. Using the tally sheet as a guide, the card punch operator pulls matching prepunched master product cards from a tub file, where they are kept for repeated use as needed. These cards contain all constant information on each product.

EXTENDED cards are run through 407 accounting machine twice: First, to reconcile differences in tallyman's estimate and machine total; second, for production of invoice.

THERE ARE 5,000 such product cards, but the most frequently used—1,000 or so—are grouped together for fast pulling, since about 90% of all orders can be processed with them alone. Grouping sequence is such that the pulling can be done with a minimum of hunting.

The card punch operator also pulls two decks of blank cards, one a tally card and the other a blank summary card. These she punches, using the information on the tallyman's sheet, first placing the matching master product card ahead of them in the card punch hopper.

This puts the data into a form which makes it compatible for automatic machine processing.

The three cards are then placed in the IBM 602 A punched card calculator, which picks up a unit foot factor from the master product card and translates the lineal bundle or lineal piece measure into board feet.

From the item summary card, the calculator picks up the unit price and multiplies it by the foot-board measure total to get the amount to be billed. Both measure and amount are automatically punched into the item summary card.

The calculator simultaneously compares the machine-computed footboard measure with the tallyman's own total, both of which are now punched into the same item summary card. If there is a discrepancy, the offending cards are machine coded.

THIS SAME PROCESS is repeated in consecutive order for all items on the tally sheet. When the entire deck for a single invoice has been processed in this way, it is placed in the 407 accounting machine, where a listing is run for checking purposes. This listing shows length and pieces, computed footage, price, amount, and tallyman's estimate.

Any discrepancies in board foot totals are shown up by a printed "check" in the appropriate place in the listing. They are then audited by the invoicing department for the purpose of reconciling the two figures; after this, the detailed check lists for use in invoicing are ready to be run.

These also are run on the IBM 407 accounting machine, which prints the description and pieces, computed footage, unit price, and amount. The machine then draws totals of both board feet and invoice amounts.

THE CHECK LISTS are prepared on direct-image continuous offset plates from which any desired number of copies may be made. They are then collated with "face sheets", or non-descriptive invoices. These latter contain all the usual invoice information without a detailed listing of merchandise sold. Total invoice, terms, weight, and shipment and load data are included. The invoices are attached to the detail pages and forwarded to the customer.

At the end of the day, all the product cards are sorted out and returned to the master card file.

CARS LOADED in the morning are usually invoiced by the end of the day, or at least the first thing the following morning. Meeting such a deadline on days when the workload was heavy was impossible under manual methods of operation.

The time required to make the detailed list of loads without the aid of machines was excessive.

Speed, man-hour savings, accuracy, legibility and uniformity of product descriptions have been the big "plusses" that the system has made possible. About 32 man-hours a day have been saved, it is estimated.

THESE ADVANTAGES alone do not tell the whole story. Getting the invoice and tallyman's estimate to match always at the time of the invoicing prevents discrepancies from slipping past at this stage and having to be reconciled later.

The computations involved in making conversions from one type of measurement to another introduce many opportunities for error in timber accounting work. Only machine methods can guarantee accuracy at the time the invoicing itself is done.

Company Modernizes Bookkeeping System

To simplify bookkeeping procedure, Harrisburg Lumber Co., Harrisburg, Pa., has installed a Remington Rand Accounting Machine method adapted to volume billing. It also improves accuracy, according to Guy M. Bogar, vice-president of the company.

Since the installation of the machine, they have kept billing and statements up to date without backlogging, and have eliminated the need for frequent overtime work, particularly at month-end statement time.

Four documents, all the records required to keep complete accounts on all sales, are written simultaneously on the machine. Additional writing of ledgers, sales journal and statements — with the potential for error in each—have been by-passed entirely. Collections, follow-up and past-due accounts are thus expedited.

A SINGLE OPERATOR maintains the system, without need of overtime. Next to the machine is a wide drawer, insulated for 1-hour resistance to fire. This contains the ledgers which form receivable files. Records thus do not have to be moved into a vault.

The company has approximately 3000 accounts, of which 50% are active at any time. Ledgers for these are headed in advance on a small addressing machine and filed in two banks within the Safe-File—one active accounts, the other inactive. Extra ledger sheets are provided for especially large accounts to avoid need for heading new ones during the month.

When the operator receives a sales ticket for a customer, she withdraws that customer's ledger card from the file and places it in the carriage of the accounting machine over the sales journal sheet. Over these forms she places the invoice and statement—a single folded and perforated form with carbon already in place between the two parts and behind the statement. Thus only one carbon sheet, between the journal and ledger, are inserted by hand.

The operator posts the date of the order, delivery-slip number, customer's order number if any, item purchased, address to which the order was delivered, unit price, extensions, and total amount. All this information appears on every record of the sale, including the customer statement which accumulates these details for all orders throughout the month.

STATEMENTS are more prompt than was ever before possible. We start preparing them for mailing at the close of business on the last day of each month. By the close of business on the first day of the new month, all statements are in the mail. This results in quicker payment, and also aids customer good-will by permitting contractors to bill promptly.

When payments are received, the ledger for the account is placed in the accounting machine with the cash receipts journal form, and the item is posted quickly to bring the account up to date.

CARDATYPE handles important job of invoicing. Also computes sales reports and analysis. Operator preparing lumber sale invoice. Also IBM electric typewriter and accounting machine.

Mechanization Pays Off for Simpson Logging Co.

At Simpson Logging Co., Shelton, Wash., mechanization of accounting and office procedures is paying off in two ways: (1) Reduced costs and manpower requirements in handling inventories, invoicing, payrolling and many other functions which previously required tedious and time-consuming hand work. (2) Management now has better information — faster — on the state of the business; the first draft of the monthly report is in the managers' hands within four working days after the end of the month.

Simpson already has six accountants who are working closely with the tabulating department. They are gradually mechanizing more and more office work. Just recently, the accounts receivable were taken over by tabulating, at a savings of some 80 to 90 man-hours per month.

Simpson eased into mechanization, rather than plunging headlong. First operation undertaken was the payroll. Unlike most firms in the industry, Simpson pays weekly. Previously it was monthly. The company says that its employees prefer weekly paychecks. They think weekly paying is a definite morale builder. It wouldn't have been possible without automatic check writing facilities.

EACH MAN TO A JOB: A single tabulating job is assigned to a particular operator. He will take that one job all the way through. In this fashion, each operator becomes familiar with the operation of all the machines, as well as all the steps of any procedure.

What makes an operator? Simpson believes that an analytical-type mind and the ability to follow step-by-step procedures, as well as an accounting background, are very helpful. The company will train new employees on the job and also send them to the machine manufacturer's school.

MONTHLY REPORT: In a large company like Simpson, which has two sawmills, two plywood plants, insulating board plant and two large logging camps and a sales force scattered over the U. S., the executives cannot possibly keep a close physical watch over every phase of company activities. They must depend upon the various units to supply the information. Accounting and tabulating take the raw data from the units, tabulate it and prepare a monthly report.

Within four days after the end of the previous month, a "working estimate" is in the hands of the company managers. A final statement is out on the ninth day after close of previous month. These monthly reports are highly cherished by management; they very rapidly provide officers with knowledge of the current status of the company that was never before available on the same basis.

The monthly reports include every scrap of information that management needs on which to make decisions on operation of the business. This includes volume and value of products sold, volume and value on hand, monthly sales by area and salesman, plus orders, logs on hand and other pertinent information.

SALES ANALYSIS: A similar pattern is followed for all products (lumber,

(*Continued on page* 34)

TABULATING department shows 088 sorter, left; 402 tabulating machine, right foreground. Machines have special room.

DOZEN different machines in department plus files for cards. Man left selecting control panel. Right is reproducer; center, tabulator.

. . . Fluid Power news

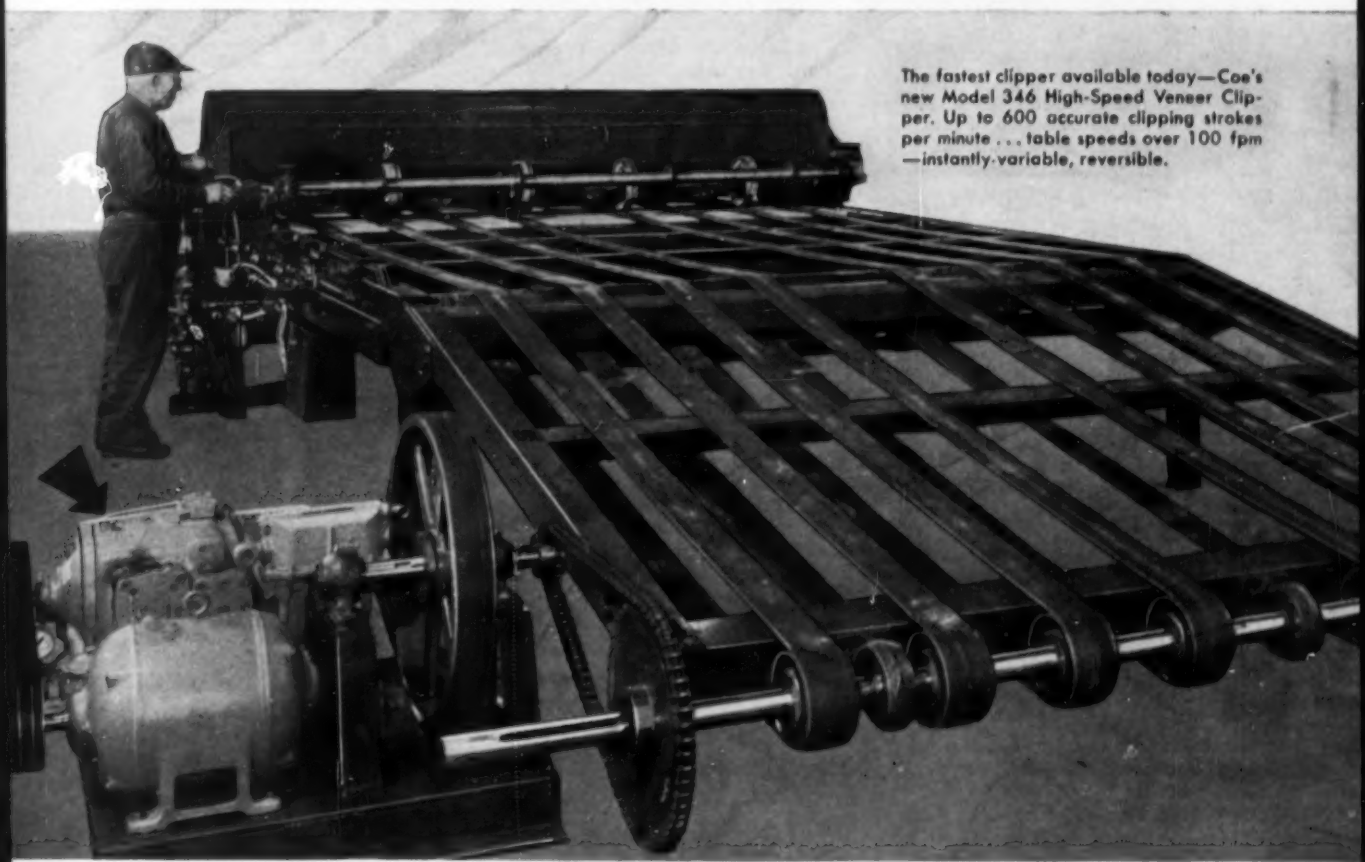
REPORT NO. 11,501
HIGH-SPEED FEED TABLE DRIVE AND CONTROL

From Oilgear Application-Engineering Files

HOW OILGEAR "*ANY-SPEED*" DRIVES BOOST VENEER CLIPPING SPEEDS—ACCURACY

CUSTOMER: *Coe Machinery Company, Painesville, Ohio*

DATA: For high-speed, accurate sizing of single sheets of veneer in motion, table feed drives for new veneer clippers must be instantly, infinitely variable, and instantly reversible to clear slips and jams at the knife if ragged or defective veneer is encountered. Complete control should be through a remote, single lever. Drive must be rugged, compact, trouble-free . . . provide smooth, stepless, shock-free, uniform acceleration and deceleration from zero to maximum in either direction . . . easy to install and maintain.



The fastest clipper available today—Coe's new Model 346 High-Speed Veneer Clipper. Up to 600 accurate clipping strokes per minute . . . table speeds over 100 fpm —instantly-variable, reversible.

SOLUTION: Shown above as standard equipment on Coe's new Model 346 high-speed veneer clippers are Oilgear heavy-duty DHC-88, two-way, *Any-Speed* Transmissions. Coe reports, "Variable table speeds are instantaneously afforded in forward and reverse. These drives are arranged to give belt speeds from approximately 70 to 175 fpm by movement of a single lever. The quick stop and reverse of this drive is very desirable if ragged or defective veneer slips and jams at the knife. This drive is equally desirable when the table drive is used to unload veneer storage decks between the clipper and the lathe." Oilgear *Any-Speed* Drives bring out the best in machines due to the many other "plus" features such as: cushioned power; automatic overload protection; automatic electric power conservation; totally sealed—safe in hazardous atmospheres; constant torque; automatically self-lubricated to insure long, trouble-free life.

Machinery manufacturers and users agree that for superior heavy-duty performance on sawmill carriages, gang-saw feeds, conveyors, capstans, winders, centrifuges, textile, paper, tape, rubber, and food processing equipment—it's Oilgear . . . for the lowest cost per year!

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Simpson's tabulating department contains the following IBM equipment:

Two 402 tabulating machines	Two collators
One 602A calculator	One interpreter
Two key punches	One 088 sorter
One verifier	One 519 document originating machine

Mechanization Pays Off

(*Continued from page* 32)

plywood, insulating board). First an invoice recap is obtained. It lists all products and gives total sales and footages, according to product and without regard to grade. Then adjustments are entered as new cards for whatever changes have taken place during month. This is the monthly report, telling management how much of every type of product was sold and the price it brought.

A further procedure is that of making detail cards for each plant. Sales analysis are broken down further into grade, thickness, size and species, according to the product. This is obtained by the same procedure as outlined above and is a monthly report. In the case of plywood, "flash reports" are prepared whenever requested.

Monthly, quarterly and yearly reports also show volume and value of material consumed by every customer. In these reports, the detail on grades, species, etc. is considered unnecessary and is left off.

INVOICING: Located in a separate room away from the tabulating department itself is Simpson Logging Co.'s "Cardatype" machine. The Cardatype Model 858, a product of IBM, with its related equipment, takes care of all the invoicing and order writing. One girl handles the operation of this work on a full-time basis.

Cardatype procedure is simple and direct and easily seen and understood by the untrained observer, who can be easily baffled by some of the more complex machines. The procedure is as follows:

1. Source document for preparing an invoice is a tally sheet from the plant with description of sale and customers name.
2. Cardatype operator inserts name card into machine, along with cards punched to indicate salesmen and sales terms.
3. An electric typewriter then automatically types the invoice, while another machine simultaneously records all the information on a punch card, (which is then retained in the tabulating department for further calculations).

LOG REPORTS: A vast amount of information about log supplies is prepared monthly by the tabulating department at Simpson. Key points of this procedure are as follows:

1. Cards are punched from the scale bills from the Puget Sound log scaling bureau, which show species, grade, brand, length and net scale. The brand indicates the area from which the logs came.
2. The company and the bureau cooperated in designing a scale bill, which, acting as the source document in this case, was geared to the tabulating department.
3. It's a Simpson practice to have each plant "buy" logs from the company. The logs are "sold" on a raft basis. Tabulating prepares a report each month showing the log use at each plant according to grade and species and how much it cost the company.
4. At the end of the month, they run a report for the Forest Service on all logs scaled during the month.
5. Log inventory—it is computed at the end of each month. They get this according to grade, species and brand.

Nine people in all staff the tabulating department. Their jobs are listed here. Nos. 1-4 are men; 5 and 6 are filled by women.

1. Supervisor
2. Control accountant
3. Methods analyst
4. Three machine operators
5. Two key-punch operators (1 full time, 1 part time)
6. Verifier operator

SPECIAL REPORTS: Tabulating is capable of getting out nearly any kind of a report that some department wants. For example, the sawmills wanted to know the truck shipments according to grade, species and customer. It would have been impractical to do the job if it had to be done by hand. Tabulating did the job in three hours.

Punch Cards Expedite Log Scaling

A total of 25 employes and IBM punchcard equipment are now doing work that would require some 200 employes hand - computing log - scale books for the Columbia River Log Scaling and Grading Bureau, Portland, Ore., according to estimates of bureau technicians.

Probably the pioneer in the use of machine accounting in the Northwest forest industries, the bureau installed card equipment in June, 1945, when it found it was impractical to continue with hand computing methods.

The decision was made to install IBM equipment which included three key punches and verifiers, a tabulator, gang-punch and sorter. This equipment was soon doubled and, later, a branch office was located in Eugene, Ore., so that present capacity of the system is 28,000 logs a day. Nearly 200 scalers are now in the field.

SCALERS send in their books with the key punchers in the central offices punching a card for each log. A raft of logs might have anywhere from one to 300 ownerships included. Machine practices greatly simplify the problem of ownership reports.

Presently, a minimum of 14 sorts are required on the sorter, with calculating being done on the 407 tabulator. The bureau has on order, however, a RAMAC (Random Access Memory Accounting) 305 machine which for the bureau's purpose will nearly eliminate the need for card sorting. It has a storage capacity of 5 million units of information. The cards will merely be punched and fed to the machine which will punch out report cards which will then be printed on the tabulator.

EVENTUALLY, log information will possibly come in from the field on punched tapes via teletype for more rapid reports.

One bureau difficulty is the season distribution of its work. The scaling season coincides with the logging season. The peak is in the April through November period. Another peak occurs early in the month when customers clamor for reports. The bureau has no way to plan its work ahead with the market conditions, weather, and fires some examples of the variables. This is as contrasted to most manufacturing industry uses where the work can be closely scheduled.

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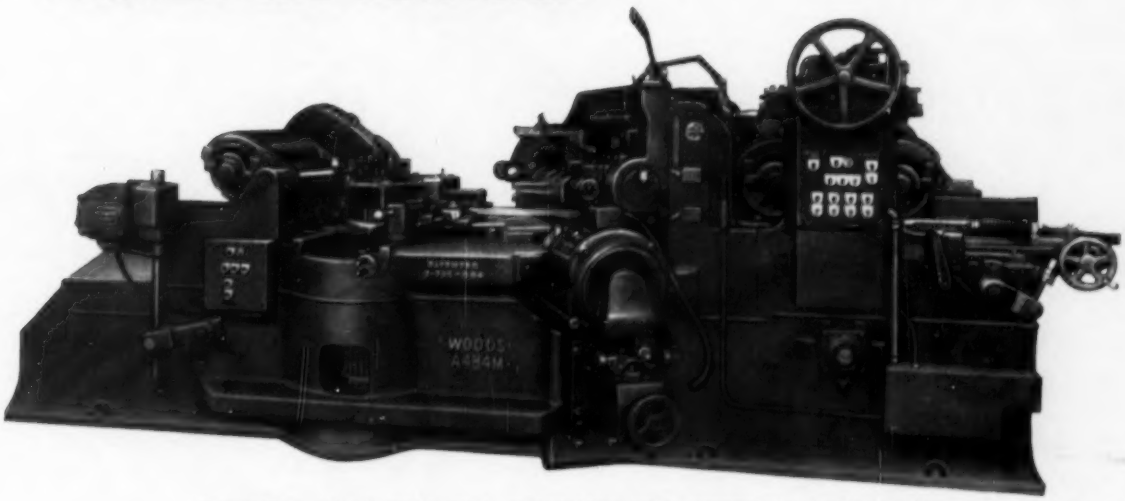

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Fast, Accurate

Log Scale Computation

at Union Lumber Co.

UNIVAC 60 on which log scale and other computing is done at Union Lumber Co. Sally Peelen inserts the programming board into the Remington Rand machine.

One of the first uses of direct machine calculation of log scale is being made at Union Lumber Co., Fort Bragg, Calif., according to J. L. Pryor, company office manager.

In its transition from manual computation of log scales, through punch card sorting and now into punch card electronic computation, the company has speeded its computations, as well as achieving what it feels to be a better scale.

"Since log scale formulae vary, and it is necessary to make adjustments to keep the scale in line," says Pryor, "we did not apply electronic computation to log scale when we first installed the Remington-Rand Univac 60."

"As we did not think the log scale could be calculated on the computer, we then limited it to general accounting and other work. We have since found the computer could be programmed to handle log scale. Since that time we have enjoyed unsurpassed accuracy and speed in computing scale."

SCALING IS DONE IN THE WOODS under the present system where the second loader at the landing does the job. Under this system a more accurate scale results because the scaler has easy access to each log and more time to do his work.

Scale information is entered on scaling cards and these are given to the truck driver when he leaves the landing. At the mill the driver gives the card to the mill scaler and the information is transferred to scale tickets.

SCALE TICKETS are marked for: Origin, Gulch No., Destination, Scaling Location, Hauled by, Car or Truck No., Scale, Cold Deck No. and Date. For each log, Diameter, Length, Species and when necessary, Grade. The tickets are prepared in triplicate with the original going to the company office, one copy to the logging contractor and the third to the hauling contractor, where applicable.

The scale tickets from each of the company's nine operating areas are combined and tagged with a Daily Scale Sheet Summary. This sheet affords the key-punch operators, who prepare the detail cards, a code by which to punch. A code number is assigned for: Origin, Gulch No., Mileage, Logging Contractor, Trucking Contractor, Scaled at, Destination, and Date.

KEY-PUNCH operators then punch cards for each log. The heading data is gang-punched for each batch of tickets and the operator manually punches only diameter, length and species as noted on the tickets. The cards are then run through a verifier to minimize human error.

The cards are then fed to the Univac 60 computer which computes Spaulding scale and then takes 70% of this for Humboldt scale. The company uses Spaulding, but also requires the Humboldt scale for payment for contractors.

SCALE METHOD: Technician H. Lewis Guiler, Jr., of Remington Rand, San Francisco, Calif., Univac office worked for nearly a year in setting up the computation program. Spaulding is a diagram rule and he finally developed a method of calculating logs by one-foot sections.

He first isolates the logs by diameter groups and directs the computer to subtract one inch from the diameter progressively, adding footage increase constants as it goes until the diameter is exhausted. These constants are of twenty different values depending on the isolated diameter area.

The result of the addition is the volume of a log of the isolated diameter, one foot long. The stored footage for each of the one-foot sections is added to find the volume of the entire log. Logs longer than 42 feet are divided into two logs with one increased in diameter for taper.

All this is done at the rate of 80 cards, or logs, per minute for about a 15-minute run on the company's normal 1,000 daily logs.

OTHER USES of the electronic computer are steadily increasing says Pryor, such as: Mileage hauls that are totaled daily; a running inventory of the cold deck; re-scaling logs at the headrig to form the green chain pay basis; comparing the headrig scale with green chain tally; contractors are paid each 15 days with every log recorded and loads totaled; average diameter of logs are computed per each shift; company payrolls for 900 employes is computed with year-to-date totals on earnings, taxes, deductions, etc., within 3½ hour period.

Four key punch operators and one tabulator operator under supervisor John Cimilino handle processing.

Small Size Computer Solves Problems

• A desk-size computer that's as simple to operate as a conventional desk calculator is Burrough's description of its E 101 computer manufactured by its Electrodata division. The unit is designed to solve problems too complex for efficient solution on desk calculators and, yet, too small for economical solution on giant "brains".

The design makes it possible to stop computation at critical steps to allow human intervention to bring engineering judgment to bear on the outcome of complex problems.

Programming is done on a pinboard. The operator marks the proper pin positions on a paper template and then places this over the pinboard and the pins are dropped through indicated holes. Conventional arithmetic signs are used on the board.

•

Readout Accomplished By Camera, Enlarger

• An electronic printer is being developed by the Radio Corporation of America for its Bizmac electronic computer. This unit consists of a reader which reads magnetic tape and translates coded characters into readable symbols organized as a document on the face of an electron-image tube. A permanent record is obtained by photographing the face of the tube automatically on 35 mm film.

The exposed film is developed at a rate of 100 feet in 10 minutes and an automatic continuous enlarging printer prints on an 11-inch web of paper moving at a speed of six inches per second. The output document is trimmed, sheared to the proper size and stacked. The document size may be of any width from four to 11 inches wide and five to 14 inches long, through proper setting of trimmer and shear.

•

Punched Tape Typewriter Introduced by Remington

• An electronic punched tape typewriter has been introduced by Remington Rand division of Sperry Rand Corp., which when used as an ordinary electric typewriter in preparing source documents, automatically translates everything or selected data into a punched tape for subsequent machine processing.

When fed punched tape prepared by it or other machines, it automatically reads and types information at the rate of 120 words a minute.

An example of its use is where a customer's master tape may be removed from the files and used to type a sales order automatically, with manual insertions of variable data. Simultaneously a new tape is being punched which may be later used to automatically type the shipping advice. This may also be used to produce an invoice or back order as required. It can be further used to produce punch cards for sales analysis.

•

Large Scale Computer Utilizes Three-Inch Tape

• The DATAmatic 1000 is a large-scale computer designed for business and put out by the DATAmatic Corp., 151 Needham St., Newton Highlands 61, Mass. Custom-fitted to size, the components are designed on a "building-block" basis so extra units can be added to meet expanded business requirements. A ferrite core memory is used with the system.

Three-inch magnetic tape is employed providing space for 31 separate channels of information on each ⅝-inch block. This tape, 2,700 feet long, has recording space for 37,200,000 decimal digits of information, a rough equivalent to 465,000 punch cards.

here's how

modern communications

can save time and money in your office

In this competitive era, time-saving communications can tilt the scales of business from loss to profit. To keep things running smoothly, you need the right equipment in the right place. And Pacific Telephone has the answers. Some of them are shown right here.

AUTOMATIC ANSWERING SET gives and takes messages while you're out. For calls that mean business, your office is "open" 24 hours a day.

TELETYPEWRITER SERVICE sends written messages with phone-call speed. 2-way communication with your other offices—or other firms. Can make order-handling 90 per cent automatic!

Modern communications can save time and dollars in your office. Let one of our specialists give you a plan tailored to your needs. No obligation. Just call your telephone business office.

Pacific Telephone

ENTIRE tabulating department of Everett Plywood & Door Corp. is shown in this room. Extreme left is sorter; next, is file cabinet for punch cards; machine in front and left of operator is Cardatype unit. Latter consists of automatic electric typewriter, key punch, accounting machine and computer. Foreground unit is for card storage.

System for Smaller Businesses Brings

Better Planning, Closer Control And Improved Production

A one-plant plywood company finds that business machines pay for themselves and open the door to bigger future savings as well as increased production of plywood and better log utilization.

Everett Plywood & Door Corp., Everett, Wash., is one of the first plywood plants to install a Cardatype tabulating department to aid in carrying out a variety of vital functions. Larry Forsling, office manager, said, "Our installation is fairly new, and we are still discovering new and varied uses which can be mechanized. While our firm is small compared to many others in the industry, we felt that we could benefit from business machines. The performance to date has been very successful. Other small or medium-size companies should remember that the size of a company is not the determining factor in mechanizing accounting."

Everett Plywood's installation consists of five units: (1) key punch, (2) Cardatype Model 858 accounting machine, (3) automatic electric typewriter, (4) computer and (5) sorter. International Business Machines, Seattle, made the installation.

DAILY ORDER FILE under the new routine is based on punch cards. The tabulating department prepares a daily report on the new incoming orders every day. As the order comes in, a card is punched to indicate each grade, species, thickness, size and the order number. The orders are totalled; so for any day it is a quick, simple matter to tabulate the volume of all types of plywood on order.

All the orders to be produced the following week are then selected and sorted out according to grade, species, etc. Each department is thus provided with a list of how much plywood of each type must be made.

MANAGEMENT likes the new system because:

1. It is an excellent basis for production control and planning.
2. It makes *each department* more efficient. This applies to mill pond and green end (where selection of rafts can be made with eye toward more efficient log utilization) on through to finishing and sanding.
3. Production per man hour is expected to be slightly greater.
4. Human errors, which could easily cause wasted time on the production line, are eliminated.
5. The daily and weekly order reports are available quickly and accurately.

PAYROLLING was one of the biggest time-consumers in the financial end of the business. Previously it took two persons working six days a month to get out the payroll for the 450 employees. With the tabulating department one person does the same job in five days. The machines will produce a check every 75 seconds.

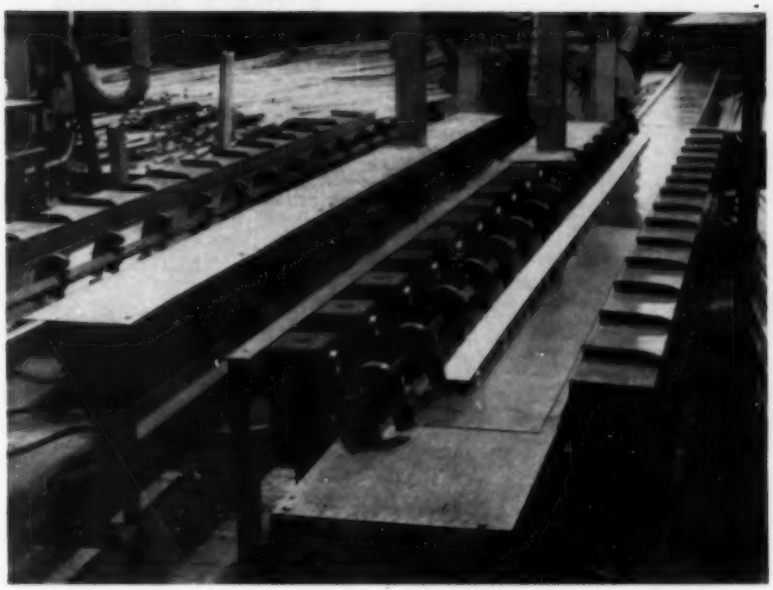
Here are the salient features of payrolling:

1. Checks are typed automatically. They are wallet-size checks, much preferred by workers.
2. Checks have detailed stub (automatically typed) showing current gross pay, current F.I.A.C. deductions and current withholding tax *as well as* gross pay, F.I.A.C. and tax deductions for the year to date. Other information can also be typed on.
3. Completed payroll punch cards are run through accounting machine and the complete permanent record of all payroll data is automatically typed.
4. Labor distribution (i. e., amount of time and money attributable to the various functions of the plant), is also computed. Thus cost for operating each of the departments during the month is quickly obtained.
5. Human errors are eliminated. For example, an office employee could inadvertently figure a deduction of $100 for F.I.A.C. for the year. However, the legal limit is $94.50. The machine can be set to reject any F.I.A.C. entry exceeding $94.50.

IDEAL FOR SMALL OFFICE, this size installation is the answer to mechanization for smaller firms," Mr. Forsling states. "It is a simple matter to train the operator. We sent ours to school for four days and she was easily able to handle the new work.

"Payroll and daily orders are the two major jobs we have mechanized thus far. The next step is to transfer all invoicing to the tabulating department, as well as record-keeping and inventory on our log supply."

Mr. Forsling told THE LUMBERMAN that they have set up a control system whereby manual computations are checked against the machine totals. They have never found the machine to be inaccurate.



TALLYMATIC installation at Harbin Mill & Lumber Co., Memphis, Tenn., shows 2 of 4 cutoff saws used for cutting out knots, splits, bark and discolorations in the production line manufacture of high grade mouldings. The right hand table has part of the protective cover removed to show 10 of the 14 photo-relays. The spots of light are visible on the edge of the piece of lumber on the table. The light beams are located adjacent to the stops, at 1-foot intervals, from 3 to 16 feet. The spot of light which is interrupted fartherest from the saw determines the counter to be advanced when the cut is made. Thus the length of the piece is recorded automatically.

Automatic Lumber Tally Machine

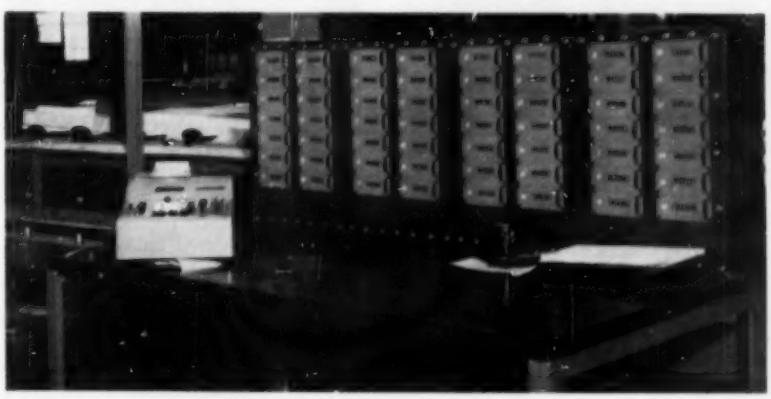
The Wilco *Tallymatic* System of tallying lumber and wood products, in process, is extremely flexible and may be profitably applied in many operations.

The *Tallymatic* utilizes a number of photo-electric cells to "feel" the length of individual pieces of stock and to count or record them, according to their individual lengths. The basic system is designed to register, on remote counters, the number of pieces of each length that is processed. From this information, extensions are made and totals derived on an ordinary office type calculating machine. Data is provided on board feet and linear feet for production and cost control.

The light beams and their associated receivers, or photo-relays, are standard industrial control items. The light sources, receivers and relays are located well out of the way and carefully protected from contact with the lumber being processed. Only the beam of light is in the path of the lumber. There are no switches, levers or contacts in this path, reducing breakage and maintenance to an absolute minimum due to this absence of mechanical devices.

A push button station, not shown in the photograph, permits the machine operator to manually "punch" into the records, the pieces of various lengths that are passed without grading cuts. Operator training is quite simple and accomplished without any adverse effect on production.

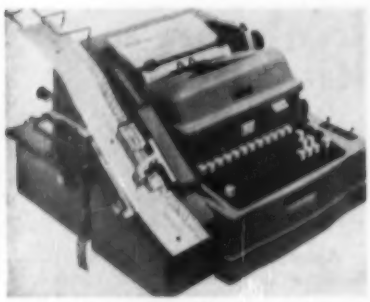
Applications for other material, such as stock millwork, furniture parts, etc., are readily made. The light sources and receiver elements can be mounted on slide bars and adjusted like stock stops, to suit individual job requirements. The *Tallymatic* is basically a data gathering system. The accumulated data may be fed into automatic computing elements for the direct indication and/or recording of the extensions to total linear feet, board feet, or other desired result. The machine is made by Wilco Machine Works in Memphis, Tenn.



COUNTER PANEL BOARD with 4 groups of 14 counters. The counters register the total number of pieces of each length, as cut on each of the four saws. The calculating machine is used by the clerk to calculate the total linear footage produced by each saw. It is of the tape printing type and the tape is torn off and marked to identify the machine, date, operator, mould pattern number and job number. The tape then becomes a part of the permanent records in the cost keeping system devised by Mr. Harbin.

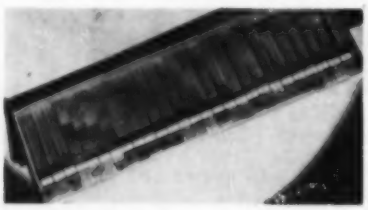
VISIsleeve punched-tape filers have been introduced by the VISIrecord Company as an aid to offices using tapes in their accounting. These are rigid, transparent plastic containers which are arranged side by side in a 24 or 30-inch wide panel designed to fit into regular VISIrecord housing units.

Each plastic sleeve accommodates one tape of any channel width and up to 75 feet in length. Each tape may be removed separately, or for interim protection and identification. BELOW (right): VISIsleeve container for filing tapes.



FRIDEN Model FPC Programatic Flexowriter is used for billing where standard quantities and prices prevail. Each "product" card put into the machine carries precalculated extensions. Totals are computed from the orders before they are sent to the billing department. Most work is done automatically.

Pertinent data for subsequent accounting purposes is captured on the punched tape which can then be used to punch cards for later sales analysis and recording.



NEW $10,000 COMPUTER

MONROE Calculating Machine Co., has announced a desk size computer for $10,000. The Monrobot IX, combines electronic calculator and magnetic core memory unit. Programming features extend fractions, compute multiple discounts, tax percentages and freight costs automatically. Calculations made while invoice being typed and automatically entered. All data stored so invoice totals can be summarized anytime.

A. B. DICK Company has recently introduced an aluminum transfer offset plate which allows rapid changing of price lists. The method merely requires correcting the old price list with pen and pencil or pasting the new price over the old. The corrected list is then photocopied onto the offset plate.

The plate is swabbed with conditioning fluid and lacquered and put on an offset duplicator transfer process and these plates can be used on any offset duplicator.

BUSINESS MACHINE DIRECTORY

Editors of THE LUMBERMAN have compiled this partial list of companies making various types of business machines for office use. They have used sources believed to be accurate, but cannot guarantee accuracy or completeness.

ACME VISIBLE RECORDS, INC., Crozet, Va.—Visible record keeping equipment.

ADDRESSOGRAPH-MULTIGRAPH CORP., 1200 Babbitt Rd., Cleveland 17, Ohio — Card-to-magnetic tape converter; electronic facsimile printers; magnetic tapeprinters; Addressograph sensing plates.

AIRBORNE INSTRUMENT LABORATORIES, Modac Div., 864 Franklin Ave., Thornwood, N. Y. — Modac computer for business and science.

ALLEN-BRADLEY CO., 114 West Greenfield Ave., Milwaukee 4, Wis. — Potentiometers, resistors.

ALWAC CORP., 13041 S. Cerise, Hawthorne, Calif.—General purpose digital computers, converters.

R. C. ALLEN BUSINESS MACHINES, INC., Front St., N. W., Grand Rapids, Mich. — Adding machines, cash registers, bookkeeping machines.

AMPEX CORPORATION, 934 Charter, Redwood City, Calif.—Magnetic tape records.

AUTOGRAPHIC BUSINESS FORM, INC., 215 7th Hoboken, New Jersey—Business forms.

AUTOMATIC ELECTRIC CO., 1033 W. Van Buren, Chicago 7, Ill. — Communication and controls.

BALTIMORE BUSINESS FORMS CO., 3120-56 Frederick Ave., Baltimore 29, Md.—Business forms.

AUTONETICS, DIVISION OF NORTH AMERICAN AVIATION, INC., 9150 East Imperial Hwy., Downey, Calif. — General purpose computers.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif.—Small size low-cost digital differential analyzers and general purpose digital computers.

BURROUGHS CORPORATION, 6071 Second Ave., Detroit, Mich.—Adding and bookkeeping machines.

CLARY CORPORATION, 408 Junipero St., San Gabriel, Calif.—Adding and calculating machines, cash registers.

COPEASE CORPORATION, 270 Park Avenue, New York 17, N. Y.—Photocopy machines.

CORMAC INDUSTRIES, 80 Fifth Ave., New York 11, N. Y.—Photocopying equipment.

DATAMATIC CORPORATION, 151 Needham St., Newton Highlands 61, Mass. — Large scale general purpose electronic data processing systems.

A. B. DICK COMPANY, 5700 W. Touhy Ave., Chicago 31, Ill.—Mimeograph, spirit lithograph, supplies and accessories.

DICTAPHONE CORP., 375 Howard Ave., Bridgeport, Conn.—Magnetic tape recorders. Other electronic dictating and transcribing machines and recording equipment.

DIGITRONICS CORPORATION, Albertson Ave., Long Island, N. Y.—Elecom computers.

DITTO, INCORPORATED, 6800 McCormick Rd., Chicago 45, Ill.—Duplicating machines and supplies. Business systems.

EASTMAN KODAK CO., 343 State, Rochester, N. Y.—Photo duplicating equipment.

ELECTRODATA DIVISION OF BURROUGHS CORP., 460 Sierra Madre Villa, Pasadena, Calif. — Automatic electronic digital computers.

ELECTRONIC COMPUTER DIVISION OF UNDERWOOD CORP., 35-10 36th Ave., Long Island City, N. Y.—Electronic digital computers, Elecom; sorter-collator; accounting machines.

BUSINESS MACHINE DIRECTORY

ELLIOTT ADDRESSING MACHINE CO., 143 Albany St., Cambridge 39, Mass.—Addressing stencils with selection controlled by punched holes in cardboard margin.

EXECUTONE, INC., 416 Lexington Ave., New York 17, N. Y.—Communications systems.

E-Z SORT SYSTEMS, LTD., 45 Second St., San Francisco, Calif.—Edge-punched cards for filing and sorting data.

FACIT, INC., 404 Fourth Ave., New York 17, N. Y. Calculating machines and adding machines.

FELT & TARRANT MFG. CO., 1713-1735 N. Paulina, Chicago 22, Ill.—Comptometer adding machines and calculators. Dictating machines.

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y.—General purpose electronic digital computers.

FRIDEN CALCULATING MACHINE CO., Inc., San Leandro, Calif.—Desk calculating and adding machines. Accounting, billing data processing machines. Reading, punching, verifying, converting and transmitting equipment for tape or punch cards.

GLOBE-WERNICKE CO., Ross & Carthage Ave., Norwood, Cincinnati 12, Ohio—office equipment and supplies.

GRAY MFG. CO., 16 Arbor, Hartford 1, Conn. —Dictation systems.

HALOID CO., 6 Haloid, Rochester 3, N. Y.—Photograph papers and chemicals. Photocopy machines.

MILO HARDING CO., Box 3846, Terminal Annex, Los Angeles, Calif. — Duplicating Machines.

INTERNATIONAL BUSINESS MACHINES CORP., 590 Madison Ave., New York 22, N. Y.—Full line of electronic data processing equipment. Clock time recording and signalling. General office machines.

LIBRASCOPE, INC., 808 Western Ave., Glendale 1, Calif.—Mechanical, electrical and electronic computers.

MARCHANT CALCULATORS, INC., 1475 Powell St., Oakland 8, Calif—Calculating machines and electronic computers.

McBEE PRODUCTS DIV. OF ROYAL McBEE CORP., Westchester Ave., Port Chester, N. Y.—Office machines, accounting forms and equipment.

McBEE COMPANY, Athens, Ohio—Punch card machines.

MOHAWK BUSINESS MACHINES CORP., Halsey St., Brooklyn 33, N. Y.—Magnetic tape recorders.

MONROE CALCULATING MACHINE CO., INC., 555 Mitchell, Orange, N. J. — Magnetic drums, selection systems; calculators; adding and bookkeeping machines; checkwriters; computers.

MOORE BUSINESS FORMS, INC., 900 Buffalo Ave., Niagara Falls, N. Y.—Business forms.

MULTISTAMP COMPANY, 527-9 W. 21st, Norfolk 1, Virginia—Stencils.

NATIONAL BLANK BOOK CO., Holyoke, Mass. —Bound books, loose leaf, Machine bookkeeping.

NATIONAL CASH REGISTER CO., Dayton 9, Ohio — Digital computers, cash registers, adding and accounting machines.

OLIVETTI CORP. OF AMERICA, 580 Fifth Ave., New York 36, N. Y.—Single and duplex register adding machines. Single and dual register printing calculators.

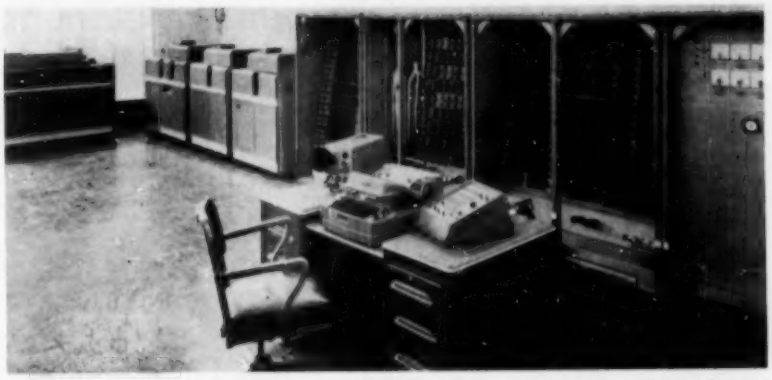
OXFORD FILING SUPPLY CO., INC., Clinto Rd., Garden City, N. Y.—Filing equipment.

OZALID DIVISION OF GENERAL ANILINE FILM CORP., Johnson City, N. Y.—Photocopying equipment.

PAILLARD PRODUCTS, INC., 100 6th Avenue, New York 13, N. Y.—Hermes Typewriter.

PHOTOSTAT CORPORATION, Industrial Trade Bldg., Providence, R. I.—Photographic copying equipment.

(*Continued on page* 42)



ALWAC model III-E computer which takes magnetic tape, punch cards and high-speed paper tape. Simultaneous searching on all magnetic tape units is possible and searching is independent of computation. A magnetic core buffer is used for tape units.

The unit, which is classified as a medium-size data processing system, has a magnetic drum holding more than 8,000 words of non-volatile storage and 128 words of fast-access working storage. Addition, subtraction and other basic operations are performed at the rate of 1,000 per second.

UNDERWOOD Post - Master 92 is a new portable posting machine for simple records such as accounts receivable or payable, for small business offices.

All-electric, the machine has a 10-key keyboard and two adding registers, each with direct subtraction and credit balance. Other features include a column control slide on the keyboard for changing from debit to credit posting, electric carriage return, full date keyboard, stop key to lock carriage, adding-subtraction erasure keys and a motorized non-tab key for listing vertically in any column.

POWERMARK, a new electric, automatic numbering machine. Completely mechanizes all numbering and coding operations on carbon interleaved forms, invoices, insurance certificates, purchase orders, client numbers, identification codes, check numbering and inspection coding. Numbers consecutive, duplicate and repeat.

Extra features available such as additional wheels for as many numbers as required, word imprinter for 1 or 2 lines of type, special number mountings. Made by Krengel Mfg. Co., New York City.

VICTOR automatic printing calculator which multiplies, divides, adds and subtracts through one control and ten numeral keys. Performing as both a calculator and an adding machine, the machine weighs less than 25 pounds.

The total transfer button which automatically re-enters and prints any total or product for multiplication or division, is the key to fast lumber figuring. Totals can be obtained and then cross-multiplied by prices.

BUSINESS MACHINE DIRECTORY

PITNEY-BOWES, INC., Walnut & Pacific, Stamford, Conn.—Postage meters, mailing machines, business machines.

PLUS COMPUTING MACHINES, INC., 5 Beckman, New York 38, N. Y.—Computing machines.

POTTER PRESS, 515-539 South, Waltham 54, Mass. Sales books, business forms.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIVISION, Camden, N. J. — Electronic computers (Bizmac) and components.

J. B. REA COMPANY, 1723 Cloverfield Blvd., Santa Monica, Calif.—Readix digital computer.

REMINGTON RAND UNIVAC DIVISION OF SPERRY RAND CORPORATION, 315 Fourth Ave., New York 10, N. Y.—Full line of electronic data processing equipment.

REMINGTON RAND DIVISION OF SPERRY RAND CORPORATION, 315 Fourth Ave., New York 10, N. Y.—General office equipment.

ROYAL TYPEWRITER CO., DIVISION OF ROYAL McBEE CORP., 2 Park Avenue, New York 16, N. Y.— Typewriters.

SMITH CORONA, INC., 701 E. Washington, Syracuse 1, N. Y.—Adding machines and typewriters.

SOROBAN ENGINEERING, INC., Box 338, Melbourne, Fla.—Data preparation devices, readers, specialized data computing systems.

SOUNDSCRIBER CORPORATION, 146 Munson, New Haven 9, Conn.—Dictating and recording equipment.

STANDARD DUPLICATING MACHINES CORPORATION, 1935 Revere Beach Blvd., Everett 49, Mass.—Fluid process duplicators, envelope sealers.

STANDARD REGISTER COMPANY, Albany & Campbell, Dayton 1, Ohio—Sensing equipment to translate printed codes into digital pulses; register, typewriters, teletypewriters, billing, accounting, tabulating and addressing machines.

SWIFT BUSINESS MACHINES CORPORATION, Great Barrington, Mass.—Adding machines.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y.—Computers, computer products.

TALLMAN, ROBBINS & COMPANY, 314 W. Superior, Chicago 10, Ill.—Accounting forms and systems, and filing equipment.

TELAUTOGRAPH CORPORATION, 8700 Bellanca Ave., Los Angeles 45, Calif.—Instantaneous written message communication

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y.—Facsimile transmitting and receiving equipment; sensitized paper.

TYPATAPE, INC., 60 East 42nd Street, New York 17, N. Y.—Recording equipment producing a printed tape that can be read photo-electrically by other machines.

UARCO, INCORPORATED, 141 W. Jackson Blvd., Chicago, Ill.—Autographic Machines and supplies. Business forms.

UNDERWOOD CORPORATION, 1 Park Avenue, New York 16, N. Y.—Accounting machines, adding machines, typewriters. Elliott-Fisher and Sundstrand machines. Underwood Samas punched card accounting machines.

VICTOR ADDING MACHINE COMPANY, 3900 North Rockwell, Chicago 18, Ill.—Digital computers, adding machines and calculators.

VISIrecord, INC., 54 Railroad Ave., Copiague, L. I., N. Y. — Tape filing systems. Business, control on edge-punched cards.

YAWMAN AND ERBE MANUFACTURING COMPANY, 1099 Jay, Rochester 3, N. Y.—Visible card record systems, filing systems and supplies.

COMPUTER CONSULTANTS

ADALIA, LTD., 1410 Stanley St., Montreal 2, Quebec, Canada.

THE AUSTIN COMPANY, 76 Ninth Ave., New York 11, New York.

AUTOMATION ENGINEERS COMPANY, 246 W. State St., Trenton, N. J.

BERKELEY ENTERPRISES, INC., 815 Washington St., Newtonville 60, Mass.

CANNING, SISSON & ASSOCIATES, 1140 S. Robertson Blvd., Los Angeles 35, Calif.

COMPUTING DEVICES OF CANADA, LTD., P. O. Box 508, Ottawa 4, Ontario, Canada.

COUNCIL FOR ECONOMIC AND INDUSTRY RESEARCH, INC., 1200 Jefferson Davis Hgwy., Arlington 2, Va.

DAYSTROM SYSTEMS, 5460 LaJolla Blvd., LaJolla, Calif.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York, N. Y.

EBASCO SERVICES, INC., 2 Rector St., New York 6, New York.

WESLEY B. EDGAR, Columbia 1, S. C.

H. S. GELLMAN & CO., LTD., 110 Bloor St., West Toronto, Ontario, Canada.

GENERAL SYSTEMS ASSOCIATES, Floyd J. Campbell, Pittock Block, Portland, Oregon.

KCS DATA CONTROL, LTD., Bay Grosvenor Bldg., Toronto 5, Ontario, Canada.

SOROBAN ENGINEERING, INC., Box 338, Melbourne, Fla.

SERVICE BUREAUS

Note: This list of service bureaus was compiled by the editors of THE LUMBERMAN from the best available sources. It cannot be guaranteed for accuracy or completeness. These bureaus will do computing services on an hourly basis or retainer basis with their own equipment.

ADALIA COMPUTATIONS, LTD., 1410 Stanley St., Montreal 2, Quebec, Canada.

ALWAC WESTERN REGIONAL COMPUTING CENTER, Los Angeles, Calif.

AMERICAN MACHINE & FOUNDRY COMPANY, Greenwich, Connecticut.

BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, Controllers Dept., Systems and Equipment Research Section, 500 Howard St., San Francisco, Calif.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif.

BROWN UNIVERSITY COMPUTING LABORATORY, Providence, R. I.

COMPUTING DEVICES OF CANADA, LTD., P. O. Box 508, Ottawa 4, Ontario, Canada.

DATAMATIC CORPORATION, 151 Needham St., Newton Highlands 61, Mass.

THE DATICS CORPORATION, 6000 Camp Bowie Blvd., P. O. Box 9128, Fort Worth, Texas.

ELECTRODATA DIVISION OF BURROUGHS CORPORATION, 460 Sierra Madre Villa, Pasadena, Calif.

ELECTRONIC ASSOCIATES, INC., El Segundo, Calif.

ELECTRONIC DATA PROCESSING CENTER, Pittock Block, Portland, Oregon.

FERRANTI, LTD., Computer Centre, 21 Portland Pl., London W1, England.

THE FRANKLIN INSTITUTE LABORATORIES FOR RESEARCH AND DEVELOPMENT, 20th St. and Benjamin Franklin Parkway, Philadelphia 3, Pa.

GEORGIA INSTITUTE OF TECHNOLOGY, Rich Electronic Computer Center, Atlanta, Ga.

HARVARD UNIVERSITY, Harvard Computation Laboratory, Cambridge, Mass.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Office of Statistical Services, Cambridge, Mass.

PURDUE UNIVERSITY, Department of Mathematics, Lafayette, Indiana.

RECORDING AND STATISTICAL CORP., 100 Sixth Ave., New York 13, N. Y.

REMINGTON RAND UNIVAC DIVISION, SPERRY RAND CORPORATION, 315 4th Ave., New York 10, N. Y., 2601 Wilshire Blvd., Los Angeles, Calif.; 525 S. W. Pine, Portland, Ore., Frankfurt, Germany.

THE SERVICE BUREAU CORPORATION, 425 Park Avenue, New York 22, New York. A subsidiary of International Business Machines Corporation. Data processing centers in Atlanta, Ga.; Boston, Mass.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Houston, Tex.; Los Angeles, Calif.; Minneapolis, Minn.; New York, N. Y.; Philadelphia, Pa.; Portland, Ore.; St. Louis, Mo.; Seattle, Wash.; San Francisco, Calif.; and Washington, D. C.

STANFORD COMPUTATION CENTER, Stanford University, Palo Alto, Calif.

UNIVERSITY OF MICHIGAN, Willow Run Laboratories, Willow Run Airport, Ypsilanti, Mich.

WAYNE STATE UNIVERSITY, Computation Laboratory, Detroit 2, Mich.

WESTINGHOUSE ELECTRIC CORP., Analytical Dept., East Pittsburgh, Pa.

Rapid File Access Given by Robot Kardex

• The new Robot Kardex of Remington Rand produces a file-slide at posting-height at the touch of a button for rapid posting. The unit contains 60 slides in two banks which are counter-balanced for the average 4-second change from one slide to another. Motors and relays operate on 110-volt DC current with a rectifier provided to convert AC into DC. In case of power failure, manual controls are provided. The unit accommodates 4,020 visibly-indexed 8 x 5 cards in 13.4 square feet of floor space.

•

Written Message Instantly Received

• So-called "Electronic Longhand" produced by Telautograph Corp., Los Angeles, Calif., provides instant verified orders among departments of a business. A message-sender merely "writes" his message with the stylus on his machine and this message is reproduced at the other end by an automatically-following remote-control stylus. The device eliminates errors through misunderstood verbal messages.

TAPE PERFORATOR by Burroughs in use with Sensimatic accounting machine provides punched-tape as by-product for later processing or conversion to cards.

Microwave Is Key

(*Continued from page 6*)

private users to utilize microwave channels permanently.

To learn of the many new kinds of communication, the Forest Industries Radio Communications aided in forming the National Microwave Council of private users that has kept voluntary records of all the private microwave stations installed in the United States, so as to avoid interferences.

In May, 1957, FCC opened a continuing series of public hearings to collect data from persons wishing to use microwave channels now or in the future. Forest Industries Radio Communications made a presentation to the commission after a nationwide survey of all radio users in the forest industry to see whether or not they could contribute to the hearing.

The industry desires the right to choose whether it supplies its own microwave private communications or elect to have common carrier communications supply the necessary circuitry. If the privilege of private microwave is granted by the FCC then the full potentials of data processing by the forest industries can be achieved.

NOW HAMPERED by inadequate communications, the forest industries plants will then be able to better integrate production. The details of each customer's order could be assembled into a production plan based on the known data of the rate of production of the various items throughout the manufacturing process.

It is conceivable that the customer's order inventory on paper could displace a great deal of the physical inventory in lumber sheds by giving daily inventory requirements for each individual department: woods, sawmill, dry kilns, etc. Once developed and operating to a satisfactory degree, there is no reason why one central data processing machine could not do the same work by remote control for several plants located within the area under the same ownership.

It is becoming increasingly obvious that the forest industry has need of and is ready to begin its coordinated use of data processing equipment. The large machines are obviously beyond the possibilities of the smaller companies, but the smaller machines are practical.

For the larger companies, the total integration of the forest and manufacturing operations can be accomplished through adequate communication facilities to transmit data processing and administrative traffic between data processing machines of the larger type and the various field points.

CHECK THE

6 BIG ADVANTAGES

YOU GET WITH **DISSTON**

GENERATED TYPE CUTTER HEADS

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Diversify and Multiply is the principle that

has built this small operation into an important producer

PLANT site at Hoopa, Calif. (1) Site of Humboldt Fir sawmill, planing mill and office. (2) The new Hoopa Veneer Co., green veneer plant and log pond. (3) The company housing development. Seven homes are completed, four more are to be built for personnel.

In this day of big mergers and consolidation of timber holdings, there also exists the smaller operator who continues to make good his growth and expansion through good management, hard work and good business judment.

Owners of Humboldt Fir, Inc. at Hoopa, Calif., S. K. Arness and Mitchell H. Wagner would be the first to recognize, however, that their sawmill is not modern. They have already made many changes and are planning more. Meanwhile they strive to produce good lumber profitably and have added a planing mill and a green veneer mill, the latter operated as Hoopa Veneer Company.

Both Mitchell Wagner and S. K. Arness worked in the Puget Sound area for a number of years before combining their lots and after scouting the Northern California area settled on the former Atkinson-Welhaven circle mill at Hoopa. With a minimum of investment they began operating in December, 1950 with little more than a run down mill. Today their Douglas fir operation cuts 25 million feet a year on their Peters 56-inch double circular headrig. Their addition of the Hoopa Veneer Company plant is their second venture in the Valley of the Trinity River.

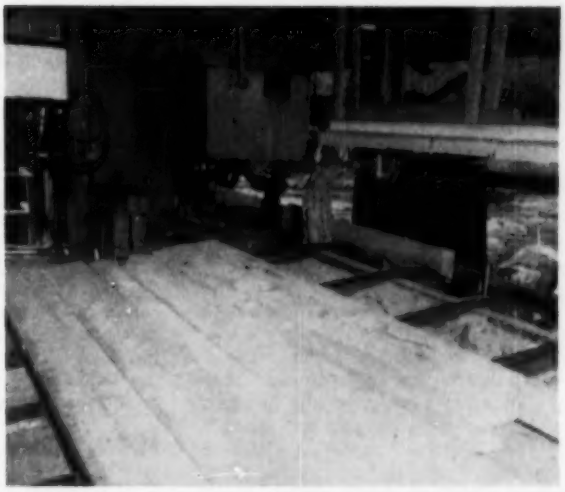
PRINCIPALS of the Humboldt Fir sawmill and Hoopa Veneer plants, Sam K. Arness, left, president and Mitchell Wagner, secretary, closely supervise their operations.

MILLING OPERATIONS: The sawmill has a 52 inch, 3-block carriage that handles 24 foot logs. Cutting heavily to resaw material, the Monarch line-bar resaw was added in 1956 with a merry-go-round from the grading chain. It resaws for both production and salvage.

Previously in 1954 the company had added a planing mill with a Stetson-Ross 6-10-A1 planer with a Swede puller from the grading table. A Peters 6-inch edger and a push pull trimmer make up the practical equipment in the sawmill.

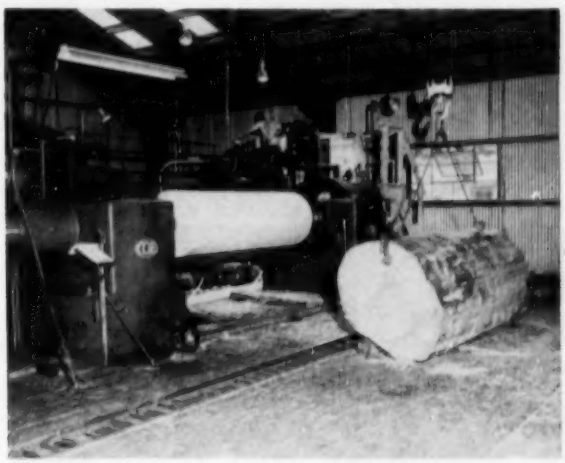
Meantime, they have added the Hoopa Veneer Company which opened for production the forepart of this year.

ORIGINAL mill purchased by Arness and Wagner has a Peters double circular headrig. Plant cuts 65 million ft. per year, Douglas fir.



RESAW, a Monarch line-bar machine, was the second major piece of equipment added by the owners. Increased production and quality.

FIRST major addition after purchase of the sawmill was a planing mill housing this Stetson-Ross planer and smooth end trimmer.



THIRD addition in the increasing of diversification of products, was Hoopa Veneer plant with 8-foot Coe lathe powered by GE AC-DC drive.

THE VENEER PLANT is located a short distance down the road from the sawmill and is housed in a Soule all-steel building, 360 x 60 feet at the head end and 50 feet wide at the tray section and broadening to 80-foot width at the sorting end.

A Blue Babe deck saw does the bucking of the logs from the 14 acre pond on a special log ramp that conveys the logs into the barker. The Eureka Boiler Works barker is located outside the mill proper on a special deck.

Inside the mill a 8-foot Coe lathe peels the logs and feeds them to two Coe semi-automatic clippers before the veneer reaches the green sorting chain. A Hyster lift truck moves the loads to the back of the mill where they are strapped in bundles with Signode flat steel strapping.

The mill is so designed with existing property for future expansion into a full plywood plant. At present the operation employs 24 men and Mr. Eric Bork is superintendent.

WOODS AND HAULING: But this is only part of the growth story of Humboldt Fir, Inc. In the woods the company operates a Caterpillar D9 for road building and three D8s for skidding. Grading is handled with a Caterpillar No. 12 with dozer and with two Caterpillar DW10s. A Washington Trakloader, a 275-Skagit, a D4 Traxcavator and a 15-yard LeTourneau round out the woods equipment.

Not satisfied with the fact that all of their forest products must be truck hauled to the railhead at Redding, some 100 miles distant, Arness and Wagner acquired their own truck hauling equipment. The business partners own 8 trucks using both Peterbilt and Kenworth to do the job. They haul for both the veneer plant and the sawmill. The seven Kenworth trucks and the one Peterbilt are all equipped with utility trailers and they may haul to all parts of California.

Fully equipped machine shop is maintained by the company at Hoopa and a company truck repair shop is maintained at Redding.

AIRPLANE AND RADIO: The partners have been quick to take up the use of both airplane and radio in their operations. A Cessna No. 182 is hangared at Redding where the truck foreman serves as a pilot for the craft as well as handling the supervision of the company trucks. A radio call to the Redding shops brings the craft to the airstrip at Hoopa within a matter of a few minutes for parts, pickup, delivery or personnel use.

In the woods operation key equipment is supplied with portable radio

equipment with base station at the main office at Hoopa.

COMPANY PHILOSOPHY: Probably the most important factor in this operation is the philosophy of the management themselves. Both Arness and Wagner, from the first, have been dedicated to the establishing of a permanent operation. Their succesful expansion to date from a very small sawmill has been the direct result of good management, hard work and careful attention to every detail. Both men are on the job 12 hours a day and study monthly accounting reports very thoroughly. They never stop planning for the steady improvement and re-equipping of their operation.

They consider important the fact that they do participate in community affairs, and in local school board work. More than that, they have sought to improve their community. They have already constructed seven three-bedroom homes, directly across from the company's new modern office building. Another home is being completed and four more are scheduled. These residences are provided for the partners' families and for the supervisory personnel. Additionally other homes are leased by the company and rented at very nominal rates to the employees. The homes which they have built are modern residences, well above the average that is to be expected in isolated communities.

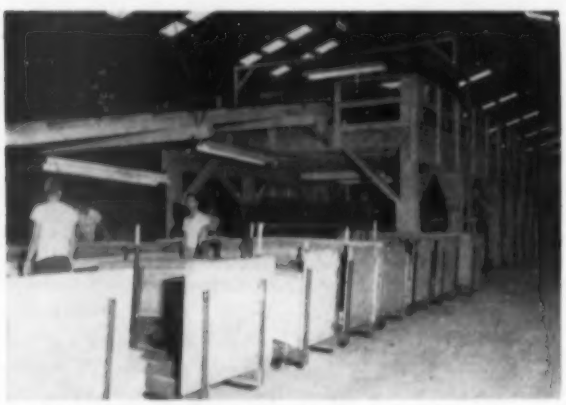
LONG TIME GOALS. The goals ahead for plant and production improvement are on a long range basis. Ultimately the sawmill plans call for a new building and a bandmill, and proper kiln drying facilities. Both partners feel that their past policy of steady but moderate expansion in sawmill and utilization equipment is and has been a key to their increased production and expansion and in the quality of products they produce.

FLOOD LOSSES SUSTAINED. The growth and recovery of this company is particularly remarkable when the heavy loss which they sustained in the flood in December, 1955 is reviewed. Homes, office buildings, lumber in the yard and logs in the pond were lost when the flood waters of the Trinity River burst onto the valley during the flood of two years ago. Three million feet of inventory was lost and six and eight foot logs were washed from the pond. New office building and the area of the new homes were begun immediately after the disaster.

OFFICE is new at Humboldt Fir, Inc. Main headquarters also for radio-communications.

LANDING strip near the mill is jointly used. Company has Cessna No. 182 at Redding.

Here is an outstanding example of a small well managed operation developing and thriving with nearly all cuts dependent on Indian Bureau and Forest Service timber.



CLIPPING in the new Hoopa Veneer plant is done with two Coe semi-automatic clippers. Handling is with Hysters and strapping is Signode.

HAULING of lumber is handled by company's own fleet of lumber trucks with Utility trailers. Here is one of 7 Kenworth trucks.

MODERN homes constructed across the road from the sawmill, house owners and supervisory personnel. To be 11 houses when completed.

VENEER is Signode strapped and hauled by the company's own trucking firm to destination. Here Peterbilt with Utility trailer is loaded out.

Japan Mill in Alaska Ships First Lumber

Reported by THE LUMBERMAN's Tokyo Correspondent

• The first shipment for the year of 1957 of the Alaska lumber sawn and shipped by Alaska Lumber and Pulp Co., arrived at Tokyo and Nagoya in August. It measured about 2 million BM, a little over a half of which was unloaded at Tokyo and the rest at Nagoya. The ship was Olympia Maru.

According to report coming from Nagoya, the lumber is now selling quite well in the city because of superior quality. Ninety-five per cent of the lumber unloaded at the port was Sitka spruce, which has established its popularity in a name of "Sitka Hinoki" since its debut in 1955, and 5% was hemlock.

The "Sitka Hinoki" has been sawn in various lengths, widths and thicknesses best suited to architectural use in Japan. It is used for music instruments, housebuilding and in furniture. Because of the bigger percentage of prime grade lumber in the lot and Japanese - matching sizes, the selling price is showing about 10% higher than the first arrivals in 1955. The use is developing in other lines and so observers forecast a bright future.

Japan this fall will commemorate 50 years of plywood production. The industry plans to build a "Plywood Center" in Tokyo—a sizable building with conference room, lecture hall, display room, rooms for associations and firms, restaurant, etc.

In Japan, this fall marked an important event was opening of a large new hardboard plant. In Nagoya, best location for forest products industry in Honshu, a full-fledged hardboard production company, Nippon Hardboard Kogyo K. K. (Japan Hardboard Industrial Co., Ltd.) was founded in early summer of 1956. It is an affiliate of Nakamura Gohan K. K., a large plywood company of Japan. Kuniichi Nakamura, president of the plywood making firm, planned the enterprise.

Equipment came from The Defibrator Co. of Sweden and The U. S. Wallboard Machinery Co.

The production capacity is cited to be 30,000 tons of hardboard plus 15,000 tons of insulation board annually. This plan is the 58th to install Dr. Asplund's defibrator system.

A network for marketing the hardboard has been set up.

Equipment includes two chippers and a rechipper, six defibrators, one forming machine and a hot press. For the time being 40% of products will be standard board while 60% will be tempered board.

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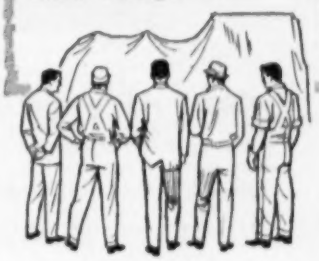

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Planing Mill Designed For Better Utilization

Cedar siding specialists go all out to design recovery plant that will make greatest use of wood inventory.

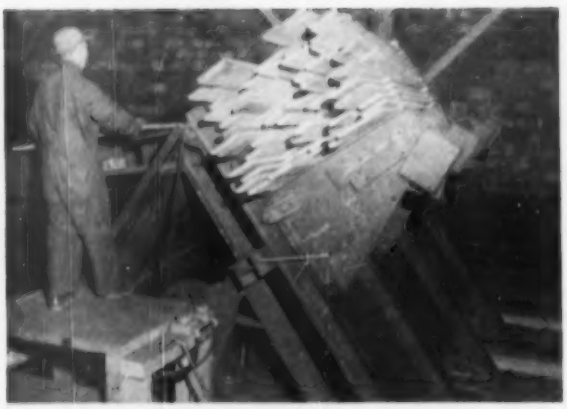
In an overall expansion program, Aloha Lumber Co., Aloha, Wash., is seeking an answer to better utilization of their wood inventory. Latest additions at this plant include a large planing mill and new dry kilns. Designed for utmost in efficiency, the planing mill has every piece of equipment so placed and regulated that maximum production and use of wood may be realized.

Material direct from the dry kilns enters the planing mill via lift truck, which places the stacks on live conveyor chains in the floor. Since these chains run the width of the building, considerable storage may be made at this end and a steady flow of supply is insured at the beginning of the production line.

Stetson-Ross equipment is used almost exclusively throughout the planing mill. The first piece in line is a tilt-lift which raises the individual stacks from the conveyor chains to an inclined feed table leading to the first planer. The boards at this state are in random widths and lengths and are either 4/4-or 5/4-inch stock.

FIRST PLANER in the production line serves the purpose of a selective unit. It is the key unit to the degree of utilization achieved. The Stetson-Ross 202 is a blanking machine which blanks the boards at a rate of 500 lineal feet per minute.

This step makes it possible to determine grade and what can be made of the stock.



FIRST breakdown upon entering the planing mill is handled on this Stetson-Ross tilt hoist that breaks down kiln stacks.

SORTING and grading of 1-inch stock before it goes to the siding department is important step in gaining better utilization.

BLANKING machine provides the first step in determining the lumber grade and what stock will make. Unit is Stetson-Ross 202.

TRIMMING of blanked lumber for grade is all handled by this Stetson air-operated hula saw. Trimmings drop to picker below floor.

If only half the board was good for siding, it was formerly the policy to discard the other half entirely. Now, the inferior half is used to best advantage. Cracks are also detected by the blanking process. If machining defects are to show up in a piece, the chances are they will show up here.

DEFECTS that show up in the blanking are edged and trimmed out in the next two stops. Air-operated hula saws trim for grade and send the good material via a merry-go-round to a smaller edger. Trimmings fall through to a picker on a lower level. The edger carries only one saw and has air-operated I. W. Johnson controls. Fingertip control levers activate the hydraulic mechanism which adjusts the saw instantly to any position.

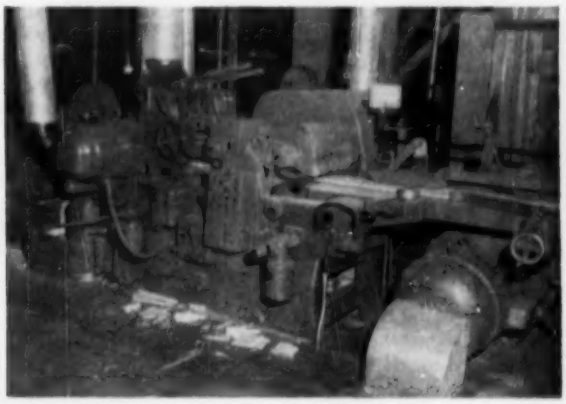
CEDAR SIDING accounts for 65,000 feet of the plant's (total production of 120,000 board feet daily. This explains why most of the equipment is geared to this product. The next two planers are respectively an S-R 126-A, which is a combination planer and matcher used for moulding production, and an S-R 612, a siding machine. The former is also used extensively for making tongue and groove stock, and other type of stock on order.

SECOND reclaim unit behind blanking machine is a 1-saw edger with I. W. Johnson air-operated controls. Saws are hydraulically adjusted by operator's finger tip controls.

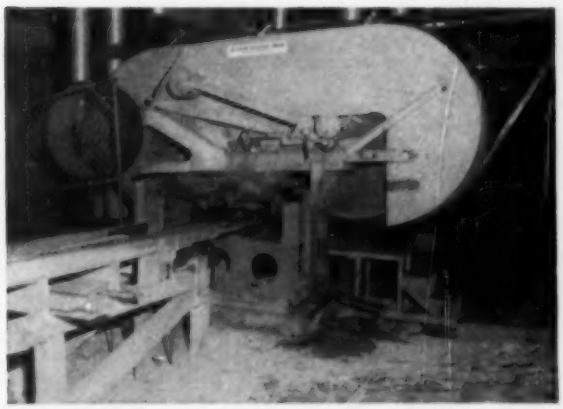
Also used in the producing of cedar siding, is an I. W. Johnson 66-inch resaw, which rips the stock diagonally. Precision trimming of the siding is done on four ripped boards at one time, which means that eight pieces of siding are trimmed simultaneously. Used for this step, is an S-R automatic push-button-controlled cutoff saw. Push buttons activate an air cylinder which raises appropriate stops at lengths desired.

SORTING AND GRADING of the cedar siding is as precise as it is important. Since the material comes to the dry chain in random lengths, it

COMBINATION Stetson-Ross 126 planer-matcher is used primarily for moulding production. Also produces tongue and groove stock.



SIDING production is primarily handled by this Stetson-Ross 612 MA planer. Siding accounts for over 50% of the plant output.



DIAGONAL ripping of the siding stock is handled with this 66-inch I. W. Johnson resaw, a key point in securing the high production output.

PRECISION trimming of the siding is done with this automatic, push-button, Stetson-Ross cutoff saw. Push-buttons control stops.

SORTING and grading random length siding. There are 10 sorts in each pocket. Four men, each have two pockets to handle in sorting.

TRIMS coming from a common hopper center at this point. All good material from 3"x22" is pulled out here for further manufacture.

requires four sorters and two graders to handle this end. There are 10 sorts in each pocket and each of the four sorters has two pockets to handle. Boards from which siding is made are also graded and sorted between precision trimmer and horizontal resaw.

The filing department occupies allotted space on the mill floor proper. Armstrong equipment is used throughout. Adjacent to this department is a separate grinding room. Equipment here includes a new Hanchett knife grinder, a saw grinder, and a Stetson-Ross combination grinder and jointer. Foreman Harry Samples is kept busy putting in shape the many heads used in the three principal machines on the floor.

On the lower level of the mill an endless conveyor belt brings all trimmings, edgings, and rejects to a common hopper. Here a picker sorts out all good material down to 3x22-inches. Short center matches 22- and 26-inches long are sorted and bundled to be used in the manufacture of silo doors. A small trim saw is used to get exact lengths. Other dimensions may be 1x3, 1x4, and 1x6. The 5/4-inch stock is saved starting with 3-inches and then in multiples of 2-inches, on order. All finally rejected waste material is handled by a Montgomery Blo-Hog. From here a Rader Pneumatic blows the fuel to the powerhouse.

THE DRY KILNS which Aloha Lumber Co. built are rather unique in several respects. The double kilns have 10 chambers, five on each side. Each chamber has a capacity of 60,000 board feet. Overall dimensions of the building are 100x124-feet.

One of the unique features is that the kilns are so constructed that the air is circulated around each chamber in a 5-foot space. Baffles are completely eliminated from the air passage.

Lovsted machinery was used in the company-fabricated kilns. Each of the 10 chambers has two 7-foot fans, except the middle chambers on either side. Each of these has three fans on individual shafts. All fans are reversed about every six hours. Temperatures are started at 100-degrees and held there for four days, then are raised 5 degrees per day to 145 degrees.

The 10-chamber kilns have five doors on each side. Loading and unloading is done from the side by Hyster lift trucks. The stickered piles are stacked five high. Loading or unloading takes about four hours.

UNUSABLE material goes to Montgomery Blo-Hog for conversion to fuel. Rader Pneumatic blower sends chips to fuel house.

CONTROL room for dry kilns shows 10 fan motors on either side for each of 10 chambers. Middle chamber has three fans.

UNLOADING kilns with Hyster, stickered piles are 5' high. Loading or unloading of kilns requires about four hours time.

New Group Backs Lumber Promotion

• National promotion of lumber and wood products continues to gain backers.

The recently established National Lumber Council for Marketing, composed of manufacturers, wholesalers and commission men, is the newest group to back the plan and is now offering the National Lumber Manufacturers Association its backing.

The National Lumber Council for Marketing originally started functioning as the "Meeting of Inquiring Minds" with the view to determining how a national program of lumber promotion could be established. After two meetings it established the new name and decided that the National Lumber Manufacturers Association is the logical choice to coordinate such a program.

The group feels that financial support should be secured not only from organization members as individuals, but also from the thousands of individuals with independent operations but nevertheless beneficiaries of the sale of lumber and wood products.

An interim committee has been named by the marketing council. It is headed by Walter E. Morgan, Morgan Lumber Sales, Columbus, Ohio, as chairman, and Tom DeWeese, DeWeese Lumber Co., Philadelphia, Miss., vice-chairman.

Members include Carl Bahr, Pacific Lumber Co., Chicago; J. Phil Boyd, Boyd Lumber Co., Chicago; A. T. Brink, Tri-State Lumber Co., Kansas City, Mo.; H. A. Crane, wholesaler of Washington, D. C.; B. C. Denvir, Southwest Lumber Mills, Chicago; L. J. Fitzpatrick, J. J. Fitzpatrick Lumber Co., Madison, Wis.; D. B. Frampton, Jr., D. B. Frampton & Company, Columbus, Ohio; Ferd Hammes, Edward Hines Lumber Co., Chicago; George W. Mueth, president of the National Association of Commission Lumber Salesmen; Ernest Wales, Hoo-Hoo-Snark, Wales Lumber Co., Spokane, Wash.; Martin Wiegand, president of National American Wholesale Lumbermen Association.

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Two-Stage Operation At the Green Chain

• The feasibility of performing the green chain operation in two stages was discussed at a recent meeting of the Redwood Sawmill Committee of the California Redwood Association. The meeting was held at the Hammond-California Redwood Co. plant in Samoa, Calif.

A study on such a possibility, reported on by Douglas W. Clayton, Western Timber Co., Eureka, indicates that sorting the lumber to size first and then re-sorting to grade permits a reduction in the green chain force and provides more accurate grading. The system has the disadvantage of requiring more storage space and extra equipment for the re-sorting.

Dean Braman of Diebold Mills, Inc., Smith River, where such a system is used, said the manpower reduction is slight, but a much greater accuracy in grading is achieved.

Lester Coe, Arcata Redwood Co., Arcata, told of the limitations of that operation where 85,000 feet of lumber per shift must be pulled on a green chain less than 100 feet long. This condition, caused by a space limitation, necessitates much subsequent sorting in the yard.

Alex Rice, Union Lumber Co., Fort Bragg, said the change from a carriage offset to the use of sliver tooth saws has reduced maintenance and improved accuracy of lumber cut, and additionally has greatly increased the safety of mill workers.

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• Dolly Varden Lumber Co. is the new name of the Jolly Giant Lumber Co., Arcata, Calif.

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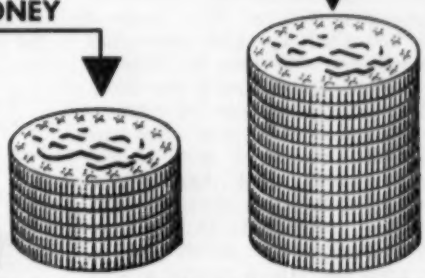

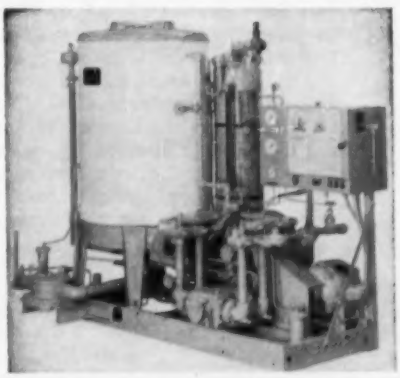

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OLD SLABS *now pour out of home-built chip conveyor at the rate of 3-carloads per day, above. Operator moves spout for load distribution.* **RIGHT,** *new Filer & Stowell chipper has 10" x 24" opening, 4 knives. Handles old slabs mixed in with green slabs, 4 to 1 ratio.*

Old Slabs Go To Market

The hardwood sawmill of the Olson Lumber Co. started up in Hartford, Washington County, Wis. about a year and a half ago. Like every other sawmill, from the time the first log went through the headrig the Olson mill faced the problem of what to do with the residual wood—that part from which no lumber could be produced—namely, slabs. Again, as in most mills, the most expedient solution was resorted to. In this case, this solution meant merely hauling the slabs out into a nearby swamp and dumping them. It was hoped that by the time the company's dumping ground was filled up, and the piles began encroaching upon the mill yard, the original piles of slabs dumped would have rotted down enough to permit the cycle to begin all over again.

But, something happened to change all that. A chip market developed that could use chips made from the old slabs as well as those made from green ones. The outlet was a flexible-shingle company in Illinois.

Installation of a Filer & Stowell chipper followed, the only one of its kind in the area. The chipper has a 10 x 24-inch opening and carries four knives. These knives are easily removed and can chip four to five carloads between grindings. The old dry slabs are mixed with the green slabs right off the saw at a ratio of about 4 to 1. Power plant for the new chipper is a 100 hp A. O. Smith AC motor with a V-belt drive.

The old slabs are brought from the dumping ground as needed by a Cary-Lift and placed on a slab deck. This deck meets the headrig slab conveyor at right angles directly in front of the chipper. Two men feed the chipper, getting slabs from both sources.

Average production runs three carloads of chips per day. Each carload runs about 25 tons. Chips are conveyed to the gondola cars by a company-made belt conveyor, powered by a 3-hp Master motor. A jointed steel spout is manually positioned as the cars fill to insure even distribution of the load. Daily railroad service to the spur spots empty cars and takes out the full ones, thus avoiding any storage or hold-over problem.

The Olson sawmill operates the year 'round, employing seven men, including the ones on the chipper. The mill has two circular saws on the American headrig; three saws on the edger, one stationary and two movable; and two movable saws on the trimmer. Daily production averages 10,000 board feet of mixed hardwoods. The mill is operated by Ralph and Clarence Olson. O. Johnson is foreman.

Johnson more or less summed up the chip story when he said, "It's nice to see those slabs being put to good use instead of rotting away out there in the swamp".

Sawdust Soil Amendment

Sawdust is being used to produce a soil amendment by the Wade Organic Co., Inc., Elgin, Ore., which recently started production at its plant. The company is licensed by the Earp Laboratories of High Bridge, N. J. The Elgin plant is run in conjunction with a cattle-feeding lot and produces a product called Organo. Sawdust is mixed with manure at a ratio of one ton to two tons of sawdust.

CARY-LIFT *readily handles old slabs. Gathers them up from swampy land where they were dumped and deposits them into a slab deck from which they are fed into the chipper.*

Expansion Announced At Marsh & Truman

• Recent expansion at Marsh & Truman Lumber Co., Chicago, involved shuffling of officers and the estabment of a Concrete Form department, A. Fletcher Marsh, newly elected chairman of the board, reports.

George L. Fairbairn, with the firm since 1923 and experienced in all departments, becomes president. R. M. Broaddus, formerly secretary, becomes vice-president, William C. Shephard is the new secretary-treasurer, and S. E. Ford becomes traffic manager and assistant secretary.

The newly established Concrete Form department will be under direction of Carl W. Almgren, sales engineer, who has been associated with form construction for many years.

Marsh & Truman for many years specialized in furnishing railroad material, then branched into construction stocks, and in recent years has been handling increasing volume of industrial lumber and pallets.

Newly elected president Fairbairn says that while the recent demand has been light, shipments are holding up in remarkably good shape and the last three months of the year should show up in good shape.

WOOD SEASONING EXPERTS in attendance at a nation-wide conference at the U. S. Forest Products Laboratory at Madison, Wis., included, left to right: Fred Dickinson, director, California Forest Products Laboratory, Berkeley, Calif.; Dr. S. B. Preston, school of natural resources, University of Michigan; Dr. Winton Patnode, research director, Weyerhaeuser Timber Co.; Dr. James S. Bethel, North Carolina State College; Dr. W. R. Marshall, associate dean, University of Wisconsin college of engineering; Harvey Smith, California Forest Experiment Station; A. C. Knauss, Pacific Northwest Forest Experiment Station; Raymond C. Rietz, charge of wood seasoning research, U. S. Forest Products Laboratory; Dr. J. A. Hall, director of the laboratory.

End, Edge-Gluing Gets Teco Attention

• Two fast developing fields in wood processing—end- and edge-gluing are to be studied by Timber Engineering Co., according to Carl A. Rishell, vice-president of the National Lumber Manufacturers Association's research affiliate.

The new program, now underway, is a continuation of a confidential comprehensive survey undertaken in 1956. The new survey will investigate new developments taking place in design and construction of machinery, applications of end- and edge-gluing to standard or new wood products, and new designs which will be basic in the development of high-strength joints.

At the conclusion of the survey, a confidential report will be released to sponsoring wood producers and wood product manufacturers.

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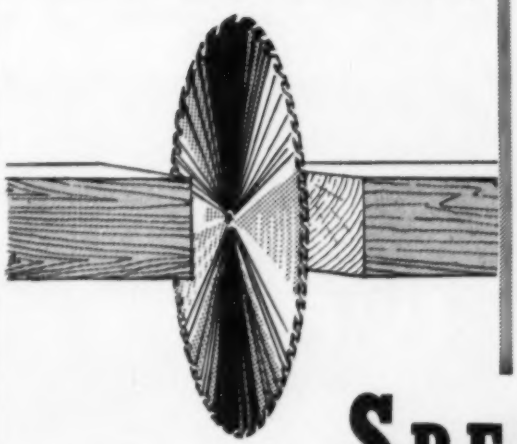

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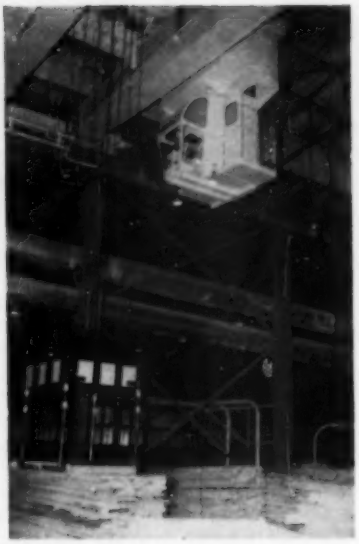
COMMUNICATIONS interplant and in the mill centers in the planing mill office of Waldo Wilson at Flagstaff, Ariz., using Motorola equipment. Wilson may also communicate with logging crews as well as head office at Phoenix and McNary mill.



REMOTE "as the stars" the P&H crane operator has direct radio contact with office.

Radio Ties Mill Operation Together

Intercommunication between several sawmills and planing mill at Flagstaff, Ariz., helps to coordinate sales and production activities.

Up to 150 million board feet of lumber can be produced annually by the plants of Southwest Lumber Mills, Inc. Radio communication facilities are part of the new equipment in the firm's modern planing mill at Flagstaff, Ariz. They permit the coordination of production and sales activities.

Part of a $1½ million improvement program, new seasoning, sorting, storage, surfacing and shipping facilities were completed at Flastaff in May 1955. These improvements were described in the November 1955 issue of THE TIMBERMAN. In October of that year, fire of unknown origin destroyed all but the kilns, stacker and unstacker. The plant was rebuilt and was in production again on July 12th of last year.

Approximately 60 million feet of lumber are expected to move through the new plant annually. Sales of this stock and up to 90 million feet, that may be produced at the McNary, Ariz. operation, are handled from the firm's head office at Phoenix, Ariz.

Flagstaff is about 70 miles from Phoenix by road; McNary is 160 miles from Flagstaff, and Phoenix is 190 miles from McNary. Other communications are unreliable, so the radio equipment was installed.

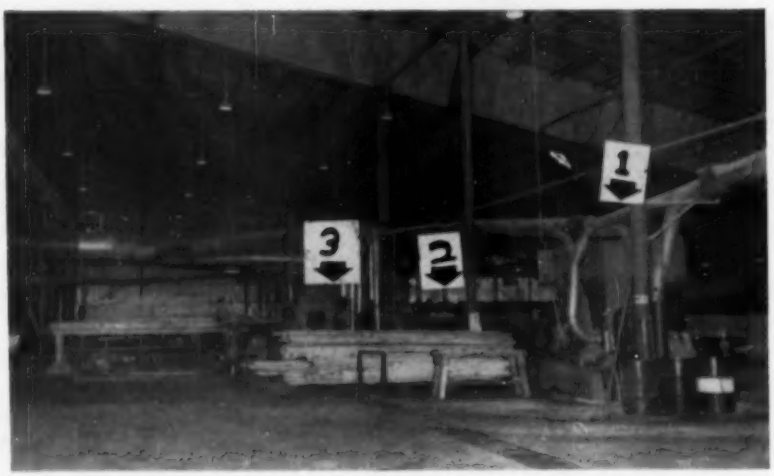
Two frequencies are used at Flagstaff by Southwest Lumber Mills, Inc. One is for the woods operations, and the other is for communications between Flagstaff, Phoenix and McNary.

Waldo Wilson is in charge of all activities beyond the sawmill at the Flagstaff operation. In his office, at one corner of the 300x600-foot new plant building, he is equipped for intercommunication with the main office at Flagstaff and radio communication with the woods, Phoenix and McNary. With the first, he is in close communication with E. L. Quirk, general manager of operations, Robert Blaser, division manager, and Al C. Hunt, plant manager.

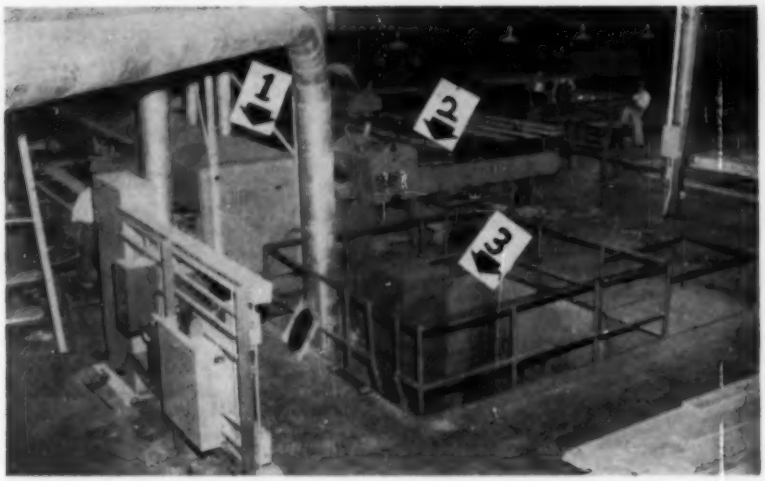
With the radio, the planing mill crew can be quickly called in case of forest fire or other emergency. Further, Wilson can be questioned regarding stock available or told of orders to be met. The work of the two plants can be promptly coordinated.

An unusual part of the radio communication system is a mobile unit in the cab of the bridge crane in the rough storage shed. The crane has a 100-foot span and can move at 600 feet per minute above the lumber, which may be stored six packages high.

"As remote as the stars" is the way Wilson has described the operator of the crane. Formerly, messages were sent up to him by rope and pulley or by writing on a board on top of a unit of lumber, which is to be raised.



PLANING MILL has Yates vertical resaw at right (1), Irvington smooth-end trimmer, right background (2), Stetson-Ross planer (3), Rees and Anderson blow pipe systems.



IRVINGTON end surfacer (1) is used with Model 61 end-printers and waxers (2) on either side of table to print both ends of lumber. A Williams hammer mill (3) in the pit, hogs the trims that are then blown to the fuel storage house.

Improvements of Southwest Lumber Mills, Inc. at Flagstaff, Ariz. include:

Moore Dry Kiln Co. stacker, unstacker, kilns.
Checo 6-ton 55-foot traveling crane made by Crane Hoist Engineering Corp., Bell, Calif.
Harnischfeger Corp. P&H 100-foot traveling crane with a speed of 600 feet per minute.
Two Stetson-Ross planers; Models 6-12 and 6-10.
Two Irvington end surfacers and Model 61 end-printer and waxer.
Two Williams hammer mills.
Rees Blow Pipe Mfg. Co. Type 100-78 blower.
Anderson Blowpipe & Mfg. Co. blow pipe.
Allison Steel Mfg. Co. buildings and conveyors.
Viking sprinkler system for fire protection.
Yates vertical band resaw.
Diehl 4-head 12-inch moulder.
Yates-American ripsaw; Wayne sweeper.
Motorola radio equipment.
Hanchett knife grinder and round saw grinder.
Stetson-Ross head grinder.
Gardner-Denver Co. 100-psi, 870-rpm 2-cylinder air compressor with 5-inch stroke and 6 and 4¾" cylinders.

Now, Wilson can talk to the crane operator from his office. The operator keeps a record in his cab of the number of loads of each length and grade that are in the shed, which may hold as much as 6 million board feet. He can advise Wilson immediately as to what is available, and he can be quickly instructed to take stock to specific transfers.

Rough storage is between the dry sorting shed and the planing mill. Green lumber from the near-by sawmill is delivered to the automatic stacker, goes through 10 kilns and is discharged from the unstacker onto a 400-foot sorting chain. The seasoned lumber is pulled to 135 pockets, from which a 55-foot bridge crane takes the stock for delivery to dry storage, via either of two roller cases.

One of the roller conveyors can be used to move the lumber directly from the sorting shed, across the dry storage shed, to the planing mill.

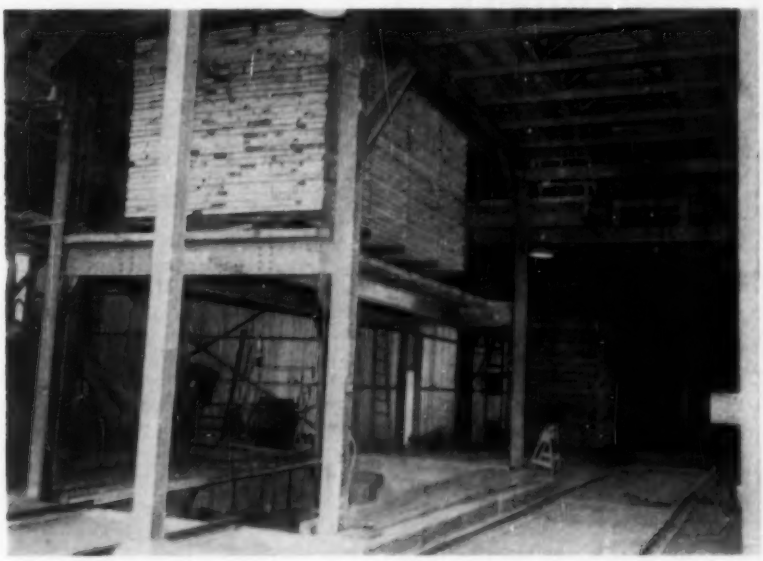
Following the fire, the mill was equipped with two planers, two smooth-end trimmers, a vertical band resaw, a 12-inch moulder and a rip saw. Trims go through a hammer mill, and the chips are blown to the fuel house.

The firm's Southwest trade mark is printed on the wax-coated ends of the boards, before they are shipped. Both truck loading docks and rail facilities are under cover alongside of the planing operation. As many as 12 railroad cars can be spotted in the large building at one time.

Working the equivalent of three shifts with one planer, the plant has been producing 225,000 board feet per day. About 90% of the lumber is surfaced. Bill Gross has charge of the planing mill, and Mike Valdivia is responsible for shipping. Other key men include Fred Scott, sawmill superintendent; Herb Dennis, green chain, stacker and dry kilns, and Ralph Tettleton, in charge of take down, send in, rough shed and yard.

Protection from fire is a prime consideration at this plant. The steel building is equipped with a sprinkler system, supplied by two tanks having a combined capacity of more than 1 million gallons of water. The automatic system has five fire pumps, which can be driven by steam or electricity. Teenie Martinez is in charge of maintenance and operation of all this equipment.

The office and filing rooms at the planing mill are attached to one end of the big building. The filing room is lined with asbestos.



STACKER and unstacker units in the new planing mill are Moore. Stacker in the foreground and unstacker in background. Plant has 10 sets of tracks in nine Moore dry kiln units. Kiln controls are automatic on the 13 60-inch fans.

Mando Promotes

C. R. Binger is new general manager of the Minnesota and Ontario Paper Co.'s National Pole & Treating division, succeeding Roy A. Halgren, who retired after 33 years in the wood preserving industry. Binger was most recently assistant general manager of the National Pole division. He joined Mando in 1946.

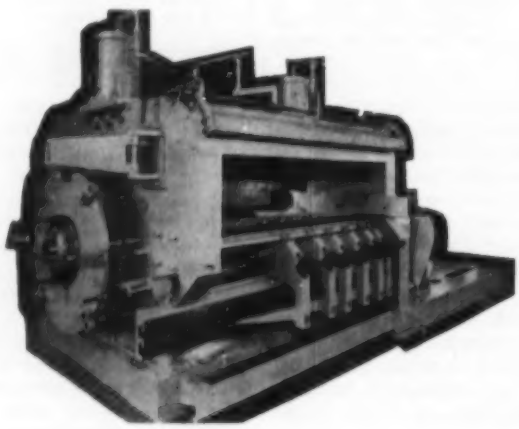
Diamond Match, Gardner Merger Completed

• Stock exchange has accomplished the merger of The Diamond Match Co. and The Gardner Board and Carton Co., Robert G. Fairburn, president of Diamond, reports. A new name has also been approved for the resulting firm . . . the Diamond Gardner Corporation.

Under terms of the merger, Edward T. Gardner, Jr., executive vice-president and Colin Gardner, III, vice-president and general manager of Gardner, becomes members of the Diamond Gardner board of directors and vice-presidents. Colin Gardner, president of Gardner and Harold E. Wright, vice-president in sales, also become vice-presidents.

Diamond Match, established in 1881, produces a diversified list of forest products . . . matches, lumber building materials and woodenware . . . and a considerable portion of molded wood pulp products. Its sales in 1956 totaled $113.7 million, net income $9 million.

Gardner produces paperboard and folding paperboard cartons. Sales in 1956 totaled $36.6 million, net income $1.8 million.



FINE Sawmill Machinery

12'x60" and 12"x72" Edgers installed during September at Weyerhaeuser Timber Co., Mill "B", Everett, Wash. This same heavy duty Edger will be found at Arcata Redwood Co., Arcata, Calif. and Orick, Calif.; Simpson Logging Co., Shelton, Wash.; Roseburg Lumber Co., Roseburg, Oregon; Booth-Kelly Lumber Co., Eugene, Oregon, and many others.

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E. K. Wood Oregon Assets Sold to Cascades

• Cascades Plywood Corp. is purchasing substantially all Oregon assets of E. K. Wood Lumber Co. Officials of the Lebanon, Ore., plywood and hardboard producer say the sale will include timberland containing about 300 million feet of standing timber, a sawmill and mill site at Reedsport, properties at Scottsburg and other sawmill and timber properties.

With the timber acquisition, Cascade will have a timber supply of more than 1 billion feet.

Cascades has made no plans to reopen the Reedsport mill, according to Charles W. Fox, Cascades president. However, Cascades is considering location of a green veneer plant in the Reedsport area. Such a mill would supply the Lebanon plywood operation.

Cascades recently completed at $1.5 million modernization of its Lebanon operations where it operates a hardboard plant and a custom operation for fabrication of hardboards and plywood specialty items.

•

B.C. Filers Select New Officers at Meeting

• Problems of the saw filer were discussed at the annual meeting of the British Columbia Sawmill Filers and Educational Association at Hotel Georgia, Vancouver, recently. About 120 attended, including delegates from Washington, Oregon and Idaho.

Papers were presented by Clark McBride, of the University of British Columbia, on saw filing methods in Europe; Philip S. Quelch, manager Simonds Canada Ltd., on lining tracks in band mills; and Bob Swanson, provincial government railroad inspector, who spoke on saw vibration.

The new president of the association is F. A. Clark, of MacMillan & Bloedel Chemainus division, succeeding Jack Cathcart, of Lions Gate Lumber Co.

Vice president is Charles Smith, Somass division, MacMillan & Bloedel. H. W. McAlluster, Moore & Whittington, is secretary-treasurer. Directors are Einar Olson, Alberni pulp division, MacMillan & Bloedel; Leo Portelance, Hillcrest Lumber Co.; Clarence Armstrong, B.C. Forests Products Victoria division; Arnold McLean, Canadian White Pine division, MacMillan & Bloedel; Robert McDonald, Vernon Box Co.

•

• Masataka Iwakami, from the business department staff of the Tokyo office of Akita Mokusai K. K., is now in Alaska for a year's service with the new Alaska Pulp & Lumber Co.

LAYOUT of the Federated Co-operatives Ltd. plant. (1) Dry sheds, (2) drykilns; (3) Edge sorter; (4) new sawmill; (5) planing mill; (6) dry shed; (7) shop; (8) office. To cut 28 million feet per year, the new sawmill is one of the most modern plants in British Columbia.

Many automatic features are used in the

New B. C. Federated Co-Op Sawmill

to increase efficiency and reduce operating costs

Newest sawmill in the British Columbia interior is the recently completed rebuilt plant of Federated Co-operatives Ltd., at Canoe, near Salmon Arm.

The company's previous mill was destroyed by fire last year. The new plant, while located on the same site, has been positioned so that a new method of raising logs from Shuswap Lake can be practiced and the flow of lumber towards the dry kiln facilitated.

Many innovations have been introduced in the new mill with a view to effecting economy in manual labor while at the same time achieving maximum production. Before proceeding with construction, executives of the company toured many sawmills in British Columbia and the Northwest states and made a note of new trends in manufacturing and automation.

Production of the new mill, which cost about $500,000, is rated at 28,000,000 feet a year, operating two shifts.

NEW EQUIPMENT includes Selectric setworks on the headsaw carriage, which is directly controlled by the sawyer; an automatic tail sawyer which speedily moves the slab, plank or cant to live offbear rollers.

This automatic tail sawyer, edger, seven-foot band mill, and line bar resaw were manufactured by Albany Machine & Supply Co., Albany, Ore. The linebar resaw can be used either for ripping or resawing, and through the use of this machine considerable lumber is salvaged.

The Irvington trimmer has preselecting Irvac memory device attached, which allows the feeder to concentrate on the board he is handling.

THE EDGE SORTER is operated by one man which sorts the lumber into lengths and thicknesses and greatly reduces the heavy work involved in normal green chain operation. In future all lumber which is to be air-dried will be piled by lift truck and taken down later for finishing by the same method. This will mean the end of piling lumber by hand, which has been practiced in the British Columbia interior since the early days of sawmilling.

DESIGNED ORIGINALLY by A. P. Lloyd, manager of the sawmill operation, and William Boychuk, maintenance supervisor, who worked out a general plan, it was turned over to D. R. LeFlufy, of Richmond Consultants, Ltd., mill engineering specialists. This resulted in a final decision of plant layout. Designed capacity of the mill is 85,000 feet b.m. per shift, with an operating crew totalling about 22, or 10 less than at the mill that burned down. The minimum of handling is effected by extensive use of remote-controlled lift gates and jumps and by a different approach to the problem of handling residues.

ALL REFUSE runs through the mill with the lumber and passes over the drop sorters proceeding to the slasher, with the exception of a small amount developed on the 22-inch Esterer gang and Albany resaw. The later is slashed up on the random-length trimmers.

A VARIATION in typical gang saw location is a result of considering the gang to be a remanufacturing machine rather than a supplementary headrig

and grouping it with the resaw in the re-manufacturing area. The output of these two machines is separated by a sorter as finished lumber, or resaw material for the merry-go-round.

A Trojan 48-inch air-electric no-man carriage, with Selectric setworks and Salem drum feedworks handles logs up to 32 feet to the Albany 7-foot single cut band mill. The log is slabbed heavy and cants are selected by grade and then sent to the Esterer V-58 gang saw.

The heavy slabs and broken down cants from the head rig go to the Albany line bar resaw, which does the ripping or splitting required. Both the band mill and the re-saw are 7-foot machines, the resaw carrying narrower wheels than the head saw. It is anticipated that the head saws when they are too narrow, will be run on the identical machine, the resaw. All filing equipment is by Armstrong.

FLOW OF MATERIAL going down the main roll case maybe to the edger, gang or onto the primary sorting table. That passing through the Albany 6 x 48 table edger goes to the primary sorting table for distribution to the resaw or as finished lumber to the trimmer. Edgings pass on over the drop sorters to the slashers. These sorters are elevated to operate by gravity and are controlled by air cylinders.

The Irvington trimmer is a Model 55, incorporating a pre-select memory system, automatic length trimming and selective grade trimming, all operated and fed by one trimmerman. Most of the mill's production goes to the grading table and edge sorter, and only three inch sizes and larger go to the off-sort chain. This, however, reduces the edge sorter to a more manageable size, considering the diversity of the mill's cut.

The edge sorter is 405 feet long and is designed to give 34 sorts according to length, width, grade and species. The lumber is transported on nine Renold Coventry 180-780 chains, each running at 360 - fpm. in separate troughs. The loader man steers the boards, on edge, into the correct trough and then sorts out the lumber according to widths. The sorted material falls into storage piles where two or four men stack it for removal by lift truck or carrier. When sorted, the lumber is placed on a 30 degree angle to allow for carrier service to the sorter.

The nigger, loader and all operating cylinders are run on compressed air. Air is also released during the winter on the bed of Shuswap Lake to keep the log pond clear of ice for winter operations. An Atlas-Copco AR-3 is the main compressor, driven by a 100-hp motor with a 300-fpm. unit as a standby. All reducers in the mill are Opperman, connected by V-belt drive to the motors, roller chain drive to the transfers.

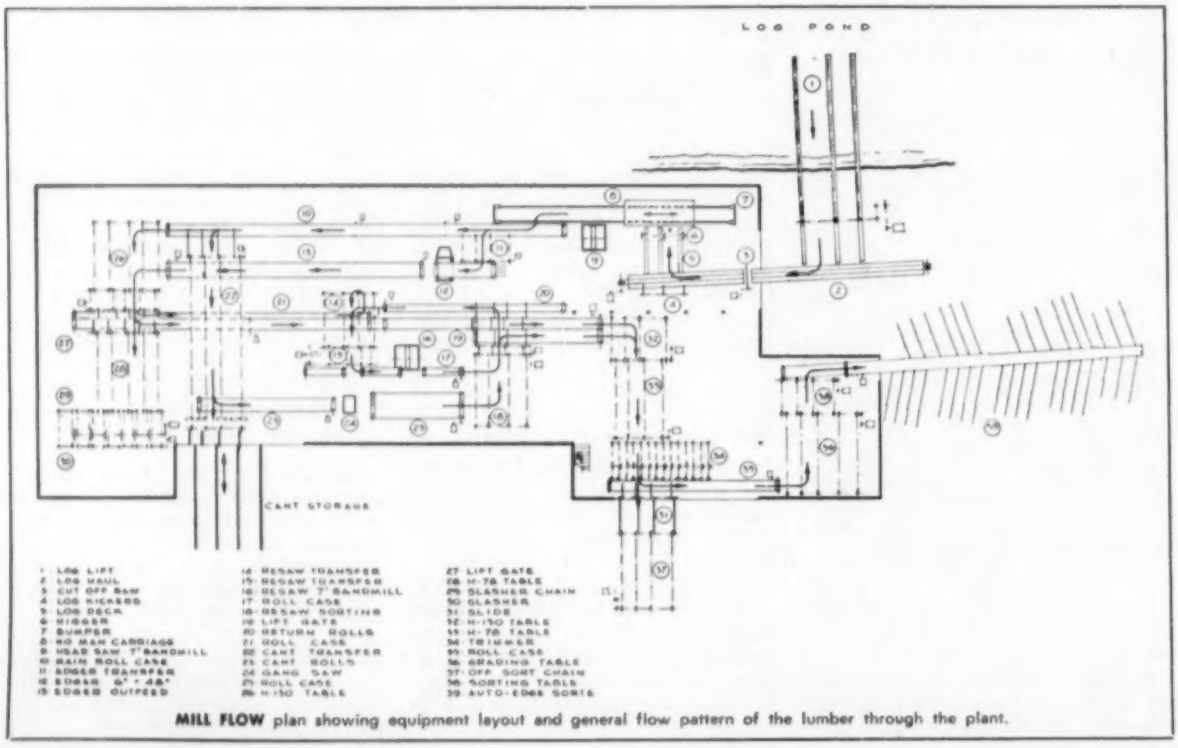
Stolberg Mill Construction, Ltd., Vancouver, was the general construction contractor.

KEY PERSONNEL in the Federated Co-operatives operation are, in addition to Mr. Lloyd, manager; Tom Rae, sawmill supt.; West Smith, construction foreman, and William Boychuck, maintenance supervisor.

George Urwin is president of the company, and has held that position since 1944. In January, 1955, Saskatchewan and Manitoba co-operative associations amalgamated to form Federated Co-operatives. The new organization now supplies the lumber requirements of 155,000 co-operative members in the Canadian prairie provinces, who helped finance not only the mill at Canoe but another at Chase, B.C., which produces about 8,000,000 feet a year.

Tax Exemption Granted

Pacific Northern Lumber Co., Portland, Ore., has been granted a liberal exemption from territorial taxes by the Board of Administration under the Tax Incentive law passed in the 1957 session of the Alaska Territorial Legislature. Under provisions of the grant, the company will be exempt from territorial income tax for a period of 10 years from the date that its Wrangell operations begin.



MILL FLOW plan showing equipment layout and general flow pattern of the lumber through the plant.

Tree Farm Tied To Peeler Supply

• Plywood and forestry are closely linked in a new tree farm program which is planned to produce poplar peelers for the Western Plywood Co., Ltd., plant in Vancouver, B.C.

A partnership between Western Plywood Co. Ltd., and Westminster Paper Co., of New Westminster, B.C., has been set up to operate a company known as West Tree Farms Ltd. The organization has acquired bottomland along the Frazer River, through purchase and lease, and has employed a full time forester. The project has been under leadership of Pit Desjardins of Western Plywood.

The plywood company specializes in poplar-faced plywood utilizing the native species cottonwood, *Populus trichocarpa*. Panels are marked "Northern Poplar" and are used for cabinet work and for overlays.

The paper company utilizes about 15,000 cords annually of cottonwood in manufacture of groundwood paper. The plywood plant consumes about 10 million cords of cottonwood logs annually. The joint venture will insure continued supply for both companies.

•

Custom Plywood Plant Uses Particleboard

• Another plywood plant has begun using particleboard as a core for high-quality face veneers. Beaty Laminated, Ltd., Vancouver, B. C., is utilizing a board made in Canada. It is called Platewood, a product of Abitibi Power & Paper Co., Ltd., Sturgeon Falls, Ontario. So far the plant applied faces and backs of walnut, Jim Greenhill, superintendent of Beaty, displays the new product in the picture. The long piece at the left is a sample strip of Platewood. The smaller piece at center right is the walnut plywood. Jim Greenhill, superintendent, reports that the board core provides a smooth, even surface that is very workable for such uses as cabinets and doors.

Beaty is completing a plant expansion program that will include a new press and a new Ruckle clipper imported from Germany. The company is engaged in the production of high-quality custom panels. In addition to its own panels, it presses up specialty items for the larger plants in the Vancouver area.

•

Brookings Adds Sander

A Yates-American 8-drum sander was among recent installations at Brookings Plywood Corp., Brookings, Ore., according to President Ray H. Reeser.

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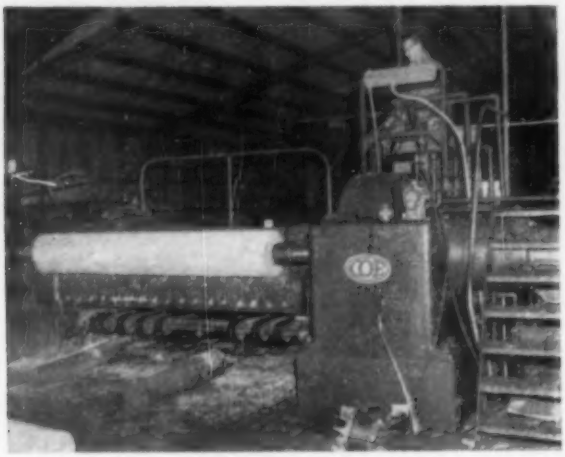
EDERER barker, overhead pressure bar type, barks blocks for KOGAP plant, above. Logs can be moved left by chain conveyor to lathe or be kicked off, back into the pond. Note operator's position at left.



PEELING of logs is handled by this 8-foot, 84-inch swing Coe lathe. Mill produces 75,000 sq. ft. C and D veneer on 3/8-inch basis. Blocks are peeled down to a 9-inch core on the main lathe.

Veneer Plant Aids In Small Log Use

The veneer plant of Kogap Veneer Co., Medford, Ore. has added to the manufacturing center of Kogap Lumber Industries and Solar Lumber Co.

The Coe and Ederer-equipped plant which started operations last year is producing 75,000 square feet of C and D veneer on a 3/8-inch basis operating two shifts and peeling an average 24-inch log.

According to Jerry Lausmann, Kogap Veneer co-manager and vice-president, the plant brings better utilization of the smaller logs that were formerly sawn. The plant peels down to a 9-inch core. They cores are sold for converting into studs.

The pond work joining three ponds, includes a concrete culvert 150 feet long and 5x16 feet in cross sections, which actually carries a creek under the mill pond. It is from this same creek that water is drawn to supply the ponds.

The logs are segregated by the pond crew. Peelers are sent to the deck via a jackladder where they are chain-conveyed to the Kliever deck saw with an 8-foot Titan bar and chain. Occasional mill logs which reach the saw are dropped back down concrete skids to the pond. Air kickers are used for this task.

Logs are scaled when dumped into the pond, again when they are bucked on the deck and again when put into the lathe. A monthly inventory balances the scales for proper crediting for the three organizations operating from the pond.

Following bucking, jump chains pick up the peeler blocks from the transfer from the deck saw and convey them to the Ederer barker outside the plant building. Barked blocks are either conveyed into the plant for the lathe or may be kicked back into the pond for storage. The barker operator controls the barker transfer, the air-kicker, kicking blocks into the pond and the transfer to the lathe deck.

A P&H 5-ton overhead rail-crane is used for charging. The rail projects outside the building over the mill pond so the crane may be used for picking up pond-stored peeler blocks.

The Coe lathe has a 84-inch swing and is driven by a Fairbanks-Morse 125-150 hp DC motor through Redco controls. A Coe grinder is used for sharpening lathe knives.

Cores are chain-conveyed outside the plant to a storage deck. Larger splits are bucked to four feet by a deck saw at one side of the lathe and are sold for fuel.

The 140 foot Coe 4-tray system was planned by plant designer W. F. "Casey" Jones, Eugene, Ore., to allow plenty of space for access beside the system. Room has also been allowed for later addition of two more trays above the present four.

The trays serve a Coe No. 346 semi-automatic clipper which is set to 27 and 54-inch automatic clipping widths. The clipper is followed by 75 feet of sorting chain and a highly-functional fishtail saw designed by plant superintendent Leroy White.

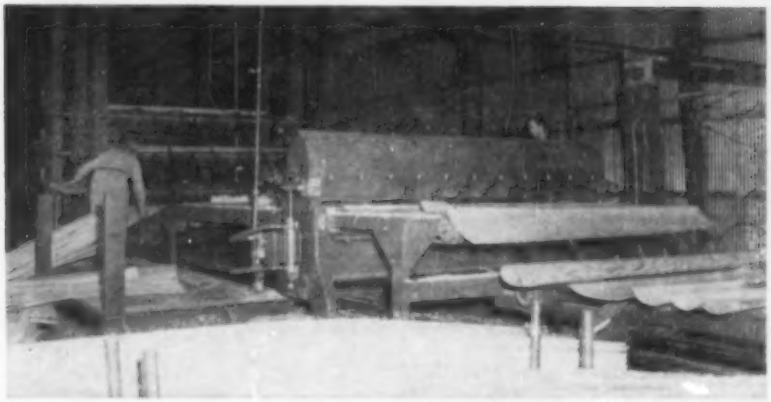
Stacks are strapped with Brainard 1/2-inch steel strapping, using a Brainard air-tightener. A Clark Y-60 lift truck is used to handle veneer in plant.

The main building, 50x300 feet, is a Soule Steel pre-fabricated structure. A 50-foot burner takes care of plant refuse.

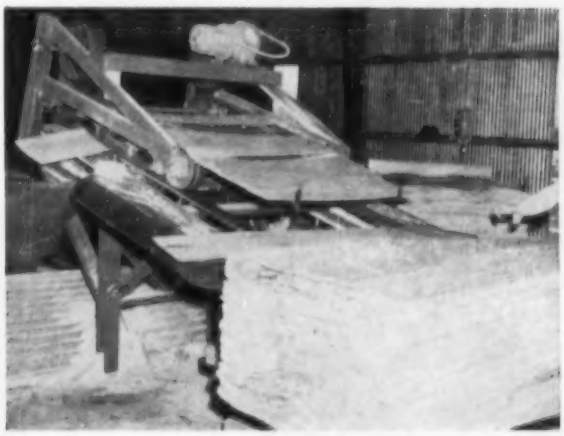
The plant employs 20 men. S. V. McQueen is president and co-manager.

CHARGING of the lathe is handled with a 5-ton, remote controlled P&H overhead crane.

Kogap Veneer Plant Uses Small Logs



CLIPPING of veneer is handled by this Coe 346 semi-automatic clipper set to automatic clipping widths of 27 and 54-inch, above. Clipper is followed by a 75-foot sorting chain. **RIGHT:** Beginning of the Coe 140-foot 4-tray system behind the lathe and feeding to the clipper. Space has been allowed for the addition of two more trays and 2nd clipper.



CENTER, LEFT: View of log pond at head of plant, showing barker at left. Skids are for feeding barked blocks back into pond storage area. Note crane rail projecting from Soule steel building, to pick logs from water.

CENTER, RIGHT: Fishtail saw at end of sorting chain has solenoid controls for straightening of veneer. Developed by plant superintendent, unit is very efficient. **LOWER, LEFT:** Jackladder lift at left takes logs from pond to Kliever deck bucking saw. Bucked blocks proceed ahead at right, to the veneer plant, or may be kicked back into pond for storage. Operator controls barker transfer, air-kickers and transfer to the lathe.

NOW UNDER ROOF is the new 4-acre building of U. S. Plywood Corp. at Roseburg, Ore. Roof trusses were designed, built and installed by Ritter Roof Structures, Portland, Ore. The building will house a plywood plant. The structure adjoins U. S. Plywood's sawmill.

Pat Veneer Increases Dry Veneer Output

• Installation of a new Moore Dry Kiln Co. 10-section, 5-line dryer by Pat Veneer Co. at its green end in Willow Creek, Calif., makes it possible for the firm to dry 60% of its veneer production. The firm will also ship dried veneer to new accounts in the east, John L. Perkins, president of the firm, reports.

The drying facilities necessitated construction of a new building 80x 260 feet. The plant has a capacity of 35 million square feet, 3/8-inch basis, a year.

New West Coast Office Set by U. S. Plywood

• New plywood purchasing headquarters in Seattle, Wash., have been established by U. S. Plywood Corp. and will be headed by Wallace E. Williams, former Midwestern division manager.

In this assignment, Williams will coordinate and administer orders for the corporation's own mills, it's contract mills and outside purchases of plywood.

Williams will be succeeded in the Midwestern post by A. H. Frost, former Chicago branch manager.

Trane Heaters Installed To Heat Plant

• A total of 17 Trane steam-heated blower heaters, altogether producing approximately three million BTUs of heat per hour were recently installed in the Vaughn, Ore., plywood plant of the Long-Bell Division of International Paper Co.

These units were mounted in sections of the plant and are not heated by the dryers or presses.

Mounted on the roof-trusses, these ceiling units take advantage of heated air by re-circulating it downward by their fans. Four of the units are large model 150PL projection heaters which project heat downward to spread out from the floor. Ten slightly smaller 120PL units are used as well as two 79H horizontal heaters. Steam pressure is maintained at 100 psi in the system.

•

Sumner Installs Chipper

A new Sumner 72-inch veneer chipper has been installed on the green end of Coos Head Timber Co., Coos Bay, Ore. The unit takes round-up and refuse veneer from the green end. Chips are conveyed to the central loading point at the sawmill chipper.

WILLIAMS-WHITE HOT PLATE PRESSES

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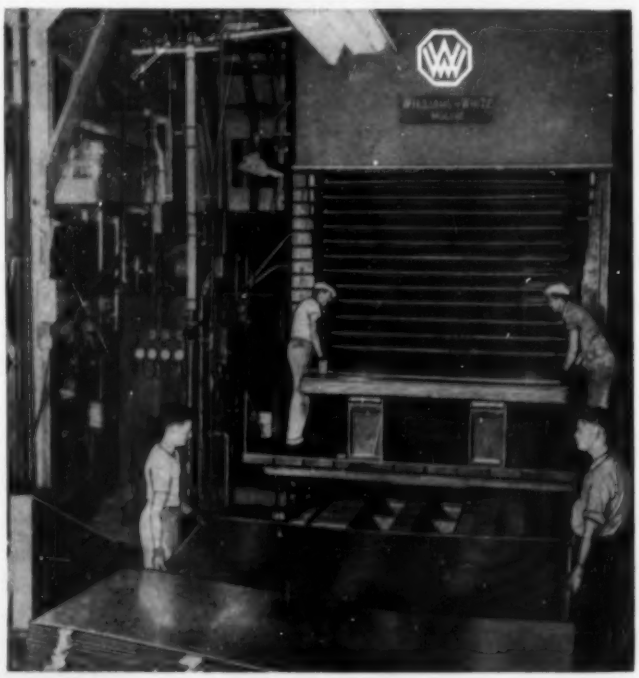
An excellent WILLIAMS-WHITE Hydraulic Hot Plate Press installation is shown in the photograph at right. Whether producing 12" x 12" or 48" x 192" panels, the experience accumulated in building hydraulic hot plate presses since 1933 becomes an integral part of each WILLIAMS-WHITE Press furnished to the plywood, particle board or allied industries. We invite you to discuss your requirements with us before you buy. Write for complete information.

The press illustrated is a 20 opening, 1,484 ton, 106" x 56" WILLIAMS-WHITE Hot Plate Press in the GPX Plastic Surfaced Plywood operation in the Olympia, Washington, plant of Georgia-Pacific Corp.

BUILDERS OF MACHINERY SINCE 1854



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PERINE MACHINERY & SUPPLY CO., Seattle, Wash.
WILLIAMS-WHITE & CO., 53 W. Jackson Blvd., Chicago

Crew Pre-Trained for New B. C. Mill

• Elk Falls Co. is counting on its new sawmill at Duncan Bay, B.C., to set new performance records because nothing has been left undone to make it efficient. The mill will not get into full production until early in 1958, but the crew that will take charge has been carefully coached in advance of the startup to insure orderly and effective operation.

The mill's purpose is to process logs brought to Duncan Bay for production of either lumber or pulp and paper at Elk Falls Co.'s adjoining sulfate and newsprint mills. It will not prepare logs for pulpwood; these will continue to be handled at the pulp mill's woodroom. By having the sawmill as well as the woodroom in operation maximum utilization of raw material will be effected.

Because of the unique nature of the operation, special training was undergone by D. S. Denman, sawmill manager; Ernie Lillos, sawmill superintendent, and C. J. Hague, industrial relations supervisor. Written directions, along with detailed sketches of the mill, were provided each employee before he took over his assigned duties. Then each man was given a chance to practice the job before actual operation began.

Veneer Plant Switching To Plywood Output

• Oregon Veneer Co. has started work to convert its veneer plant at White City, Ore., to the production of veneer. A new structure, 90x280 feet, will be constructed to house equipment that will make possible production of 4 million square feet, ⅜-inch basis, a month, Loren Haugen, president of Oregon Veneer, reports.

Initial production will be sheathing grades. However, plant design is such that sanded panels will be possible later.

Core Side Added

Port Orford Plywood Corp., Port Orford, Ore., recently added a core side in its veneer plant near Cape Blanco. Principal machinery consists of an Ederer pre-center core charger, a Coe 60-inch lathe with Redco drive, Coe Clipper with three trays and a 40-foot sorting chain.

New Plywood Sales Firm Set in San Francisco

• Kelley-Van Vleet, Inc., a new plywood sales company, has been established in San Francisco, Calif., by three well known persons in the western forest products industry. Officers are Robert N. Kelly, president, George R. Van Vleet, Jr., vice-president, and Mrs. Mabelle J. Van Vleet, secretary-treasurer.

ROBERT N. KELLY

G. R. VAN VLEET, JR.

The firm points out that it controls extensive timber holdings which, teamed with the backgrounds of its officers, will offer a broad combination of service to plywood mills. At the same time, the Van Vleet's timber holdings will enable the firm to be of substantial assistance to cooperating mills in raw material procurement.

Kelly has broad background in plywood sales and promotion. He operated his own plywood and lumber sales and distribution firm from 1945 to 1948, was eastern field promotion man for the Douglas Fir Plywood Association in New York City, and was sales manager of M and M Wood Working Co. until that firm's merger with Simpson Logging Co. Following this merger, he purchased an interest in Sierra Plywood Distributors and Douglas Fir Plywood Distributors in San Francisco, Calif.

Van Vleet, widely known in western lumber circles, grew up in the timber and lumber industry. Mrs. Van Vleet has a wide background in buying and selling of timber and in operating lumber mills and logging companies.

• Companies recently adding veneer dryers include Carolina Pacific Plywood, Inc., White City (near Medford), Ore. Carolina Pacific's new dryer is a Moore 12-section, 5-line unit. The firm also added an Ederer edge gluer with a Merritt - Solem jointer.

Long-Bell Expands in Hardwood Face Field

• New equipment installed this fall will give Long-Bell Lumber Co. Division of International Paper Co., Longview, Wash., greater flexibility in production of hardwood panels.

The Longview plant is now set up to tape their own hardwood veneers. It has installed a new Lawrence jointer, purchased through Tallman Machinery Co., and a Diehl veneer splicer. With this equipment it is in a position to offer to the market any of the hardwood faces. It can also tape faces for "Veno-Wood", which is hardwood veneer on a core of board made in the Long-Bell board plant at Longview.

Among the faces now made are Philippine mahogany and eastern birch. As a result of the Long-Bell and International Paper Co. merger, Long-Bell now has an interesting working arrangement with the parent company. Birch veneers from the International plant at Gatineau, Quebec, Canada, are now available for the Longview plant.

Long-Bell also began production of Plyron, a certified DFPA grade, during 1957.

Menasha Installing Barker

A Nicholson 60-inch ring barker serving both the green end and studmill is being installed at Menasha Plywood Corp., North Bend, Ore. A new Ederer charger is part of the project along with an entirely new common deck for both plants.

Plant for Sale

Aberdeen Plywood Corp. is up for sale, according to P. A. Nyman, vice-president and general manager. The plant has been closed for about three months. It is hoped the plant can be sold intact so that it will be reopened. If this does not happen, it will be dismantled and sold piece by piece.

New Coe Lathe

Mt. Baker Plywood, Inc., Bellingham, Wash., is installing a new Coe lathe to peel short cores. The lathe will be fed by a new Ederer charger. Mt. Baker now peels cottonwood exclusively, and the new installation will increase veneer recovery.

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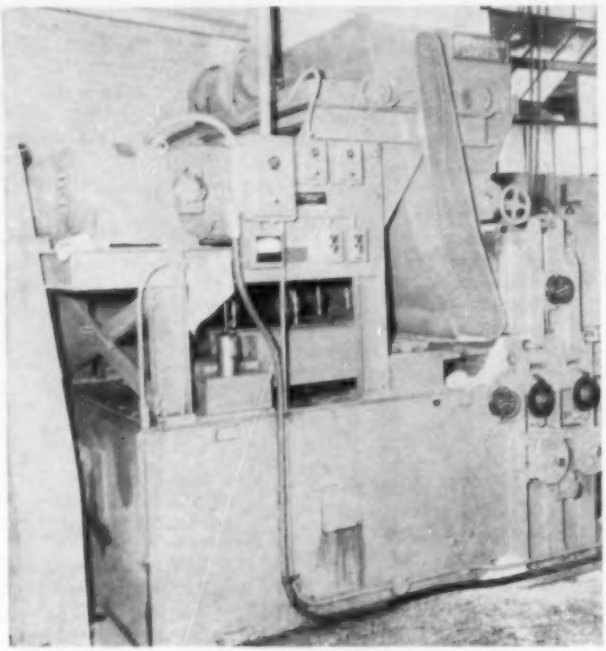


EXTRUDER machine forming particle board is an Adamson-United, horizontal. Plunger (center) pushes particles between platens.

Residual wood from four of five furniture plants is funneled into a centrally located particle board plant that extrudes 1000 square feet per hour, 13/16-inch basis. The manufacturer, The American Furniture Co., Martinsville, Va., utilizes 75% of the coreboard production and sells the other 25%.

The company's new particle board plant produces core stock for furniture manufacture and in turn the residual material is supplied from the furniture plants on the Martinsville site. With its own coreboard mill "on the grounds", the furniture company is continuing experimentation in usage of the product.

A 960-foot blower line, manufactured by H. C. Wade Co., of Martinsville, picks up scrap from four of the company's furniture plants and concentrates it at the new particle board plant. Here a Jeffrey hog reduces the waste at the rate of 3 to 5 tons per hour, depending upon the size of chips produced. Refuse may be switched to the boilers when it is not needed in particle board production.

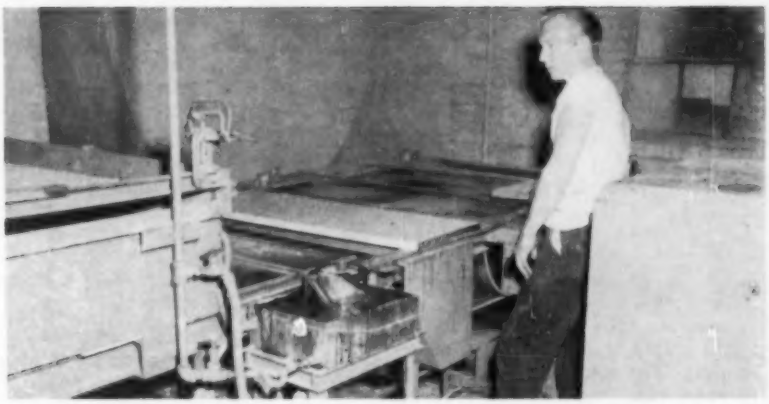
CHIPS are screened and stored in an over-head bin. From here they feed to a mixer via a weigher which automatically releases a pre-set amount. The urea glue that is mixed with the chips runs 7% to 8%, or about 17 pounds of glue to 150 pounds of particles.

ONE EXTRUDER is used in the plant —a horizontal Adamson-United. The particle and glue mixture feeds from a vertical hopper to the horizontal plunger which forces the mixture between steam-heated platens. The extruded panels range in width from 10 inches to 36 inches, but all are 50 inches long. The most common thicknesses produced are 13/16, 17/16, and 21/16. Other thicknesses can be made, ranging from ½-inch to 2 inches.

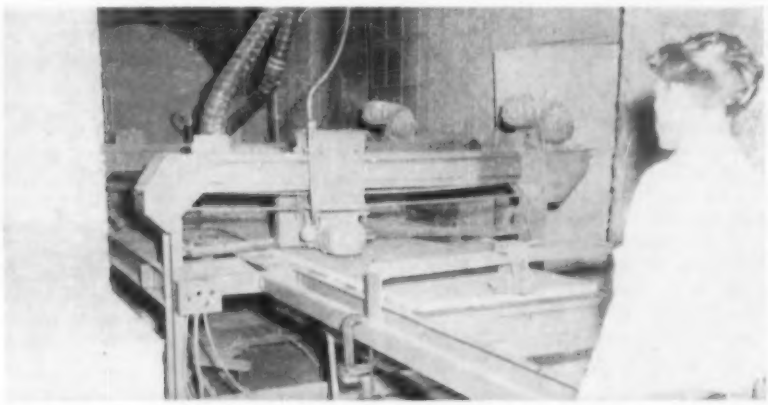
A JENKINS conveyor and double-end trimmer receive the panels as they are

PICKING panels at random for weight check. Extruder in background. Jenkins conveyor and double-end trimmer in foreground.

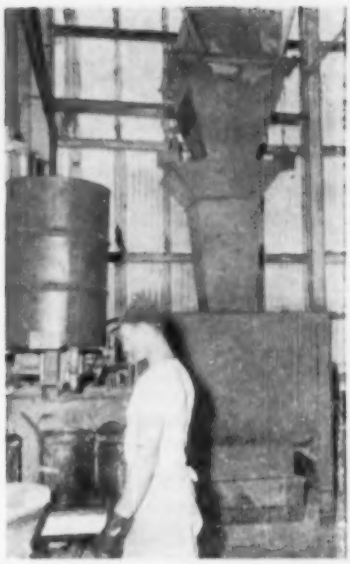
APPLYING glue with Industron gluer. By end-gluing the 50" panels, endless panels stream out of electronic glue dryer at left, above.



GLUE APPLICATOR (center). Shortly after glue is applied to edges of panels, they proceed to the former line and go directly into the electronic dryer.



SIZING of panels with Industron cutoff saws. Panels strike limit switch (center) which stops panel and activates saws. Machine cuts panels from 24" to 110" in length.



MIXER with weigher above. Urea glue is mixed 7-8%, or 17 lbs. to 150 lbs. of particles.

ENGINEER J. L. Minter holds panel ready for finishing. Poplar strips are glued to edges. Panel used in manufacture of cocktail table.

extruded. At this point, a weight control check is made as part of the overall quality control program.

Since the extruder produces only 50-inch panels, continuous panels are obtained by end-gluing. An Industron system of gluing is used. Edges are glued by a roll-type application, after which the panels proceed at right angles into the electronic dryer. Curing of the joint takes 8 seconds on a 13/16 panel. For a 21/16 panel the Industron dryer is set at 20 seconds.

THE CONTINUOUS panels are next cut to length by Industron cutoff saws. These saws can cut panels from 24 inches in length to 110 inches. As the panels proceed horizontally they strike a limit switch which automatically activates the traveling saw or saws (there are two) depending upon the length of the panel desired.

Panels are next taken to an adjoining furniture department where they are edged with glued-on poplar strips, 3-inches wide and as thick as the panel. This brings the total dimensions, for example, of a panel to be used in the manufacture of a cocktail table top, to 21¼ x 56 inches. The lumber strips take screws for underneath fastenings for legs. After the panels are trimmed and surfaced, they are ready for lamination of decorative finishes.

At present, the plant is working a 17-hour day, 5½ days a week. The first shift has five men and the second shift two men. R. L. Whitener is production manager, and James L. Minter is chief engineer.

Spokane Firm Plans Enameled Hardboard

• The Enamo Bord Mfg. Co. has announced plans to enter the siding market with a new plant at Spokane, Wash.

The firm's product is a baked enamel hardboard panel suitable for exterior siding on new and old homes. The major piece of machinery is a machine 143 feet long. The siding is moved through alternate stages of painting and baking. The finished product has two prepainted sides and is ready for installation.

Merle Black, president, and Donald Black, vice-president, are principals of the firm. They formerly were in the roofing and siding business in Spokane. Robert Wilkerson, ex-Portlander, is foreman at the Spokane plant. He formerly operated a similar plant in Portland, Ore.

•

• Robert N. Ramus has been appointed by Masonite Corporation to serve as staff assistant to William A. Cotton, vice-president in charge of production. Ramus was general mgr. of Lowell Bleachery, Inc., St. Louis.

OBITUARIES

EDWARD C. THOMPSON, 68, executive vice-president of the Biddeford Box Co., Biddeford, Me., died September 29. Mr. Thompson had served the Biddeford Box Co. since its inception in 1911. He was born June 15, 1889, in Northport, Nova Scotia.

EDWARD J. BRYNES, JR., assistant general manager of sales, eastern division, The Colorado Fuel & Iron Corp., died October 8 at the Palmer Spring plant of the firm. Mr. Byrnes started with Wickwire Spencer Steel Co., later merged with CF&I, in 1925. He served as president of the Spring Manufacturers Association from 1946 to 1951.

ROBERT G. LULL, 44, western division manager of Weyerhaeuser Sales Co., died November 6 at his home in Tacoma, Wash. Mr. Lull started with Weyerhaeuser in 1935 at Klamath Falls, Ore., and later was with the firm in Portland, Ore., Everett and Longview, Wash., and Miles City, Mont. He was named to division managership in 1954.

ROBERT D. HODGE, president of the Hodge Brothers Lumber Co., Grande Ronde, Ore., was killed in an automobile accident November 5.

CHARLES E. DEVLIN, secretary-managing director of the National Plywood Distributors Association, died November 12 while attending the winter meeting of the NPDA in Miami Beach, Fla. He was 50.

He knew the plywood industry as do few men. In 1956 he was awarded the Plywood Scroll of Honor by the NPDA with a citation that said in part: "The man we honor has for 18 years coped with the problems of the plywood industry. He stands with the select few who are known and respected for their dedication to its welfare. The fact that he has worked with both mill and distributors and emerged with the respect of both attests to his greatness."

Mr. Devlin was born May 18, 1907, in Greenbay, Wis. His education was gained at Beloit College and the Harvard school of business. His early career was in newspaper work, with the Des Moines Register and Tribune and the Spokesman Review. He entered the plywood industry in 1938 as director of publicity for the Douglas Fir Plywood Association. In 1946 he moved up to managing director.

Mr. Devlin entered private industry in 1949 as general sales manager for Simpson Logging Co., and later became vice-president in charge of sales. He assumed his post with the NPDA in 1954.

He is survived by his widow, Violet; two children, Charles Francis and Penelope Jane; his mother, Mrs. Frank Devlin, Tacoma, Wash.; a sister, Mrs. Robert N. Ketner, Tacoma; and two brothers, Robert, of Phoenix, Ariz., and F. E. Devlin, Des Moines.

ARTHUR K. HANCHETT, former president and director of the Hanchett Manufacturing Co., Big Rapids, Mich., and Portland, Ore., died October 19 in Big Rapids following a prolonged illness.

Mr. Hanchett was born in Freemont, Ohio, in 1877. He first entered the sawmill equipment field when his father joined his uncle John Hanchett in a saw swages business. He later attended the University of Michigan. Upon graduation he joined his father in saw swage manufacture and helped to expand the activities of their firm. He became president of the firm in 1927 and served in that post until 1946 when he retired from active management of the company. He is survived by two daughters and a son, Kent S., who is now president of Hanchett Manufacturing Co.

Industry Literature

A SECOND SURVEY OF DOMESTIC ELECTRONIC DIGITAL COMPUTING SYSTEMS, by M. H. Weik, Ballistic Research Laboratories, Aberdeen Proving Ground, Md. May be ordered from Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C. 439 pp. Price $7., ill. Engineering and programming characteristics of 103 commercially-available computing systems. Includes data on appl[illegible]tions, cost, personnel requirements, and power and space requirements for specific systems. Each of the systems is illustrated. Included is a complete glossary of computer engineering and programming terminology.

UNIVAC II DATA AUTOMATION SYSTEM, by Remington Rand Division of Sperry Rand Corp., 79 pp., illus. Copies from Remington Rand Univac, 315 Fourth Ave., New York 10, N. Y. Ask for U23. A complete guide to the UNIVAC II system designed for both the computer specialist and the laymen, the manual has five sections: description and illustration of all available equipments and their function: a non-technical guide to the binary number system and the seven-place code of the Univac II system: a technical description of how the central computer is organized functionally, an explanation of the system's entire repertoire of instructions, and illustrations of how the computer responds to special conditions.

UNMEASURED DAYWORK PAYROLL ON THE UNIVAC 120 WITH LABOR DISTRIBUTION CARDS AS A BY-PRODUCT, by Remington Rand Division of Sperry Rand Corp., 50 pp., illus. Copies from Remington Rand Univac, 315 Fourth Ave., New York 10, N. Y. Ask for U921. Contains all information needed to program the UNIVAC 120 to calculate the labor cost for each job and each worker's pay for the day.

POLYETHYLENE FILM. Uses, maintenance and protection of polyethylene film and its properties and resistance to other forces are listed in a new data sheet available from the Durethene Department, Koppers Company, Inc., 1450 Koppers Building, Pittsburgh 19, Pa.

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LITERATURE ON REQUEST

Lumber Prices

• Southern Pine Prices (KD Stock)

Vertical Grain Flooring

	BB	C	D
1x4	205.00	200.00	195.00

Flat Grain Flooring

1x4	150.00	145.00	127.00
1x6	175.00	160.00	130.00

Drop Siding

1x6 No. 106	191.00	170.00	130.00
No. 116	191.00	170.00	130.00

Boards & Shiplap

	1x6	1x8	1x10	1x12
No. 1	130.00	130.00	132.00	170.00
No. 2	78.00	81.00	82.00	97.00
No. 3	66.00	73.00	72.00	72.00

No. 1 Dimension

	12	14	16	18	20
2x4	98.00	98.00	98.00	115.00	115.00
2x6	100.00	100.00	97.00	115.00	115.00
2x8	98.00	96.00	96.00	110.00	110.00
2x10	110.00	103.00	105.00	120.00	120.00
2x12	125.00	113.00	115.00	130.00	130.00

No. 2 Dimension

	12	14	16	18	20
2x4	91.00	93.00	93.00	103.00	103.00
2x6	87.00	88.00	87.00	100.00	100.00
2x8	88.00	87.00	84.00	95.00	95.00
2x10	88.00	90.00	86.00	100.00	100.00
2x12	90.00	90.00	88.00	105.00	110.00

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C Select RL	$259.88	$259.20	$262.49
D Select RL	173.50	188.62	179.25
SHOP S2S	No. 1	No. 2	
5/4	$125.00	$ 93.95	
6/4	127.10	93.81	
COMMONS S2 or 4S	No. 1	No. 3	
1x8" RL	$100.22	$ 67.19	
1x12" RL	114.78	70.47	
4/4 No. 4 Common S2 or 4S	50.33		

IDAHO WHITE PINE

SELECTS S2 or 4S	4/4RW	6/4RW	
Choice (C) RL	$272.14	$290.00	
Quality (D) RL	191.48	232.76	
	Colonial	Sterling	Std.
COMMONS S2 or 4S	No. 1	No. 2	No. 3
1x8" RL		$153.68	$ 99.59
1x12" RL		164.84	100.37
4/4 UTILITY (#4) S2 or 4S RW&L	59.55		

SUGAR PINE

SELECTS S2 or 4S	4/4RW	5/4RW	6/4RW
No. 1 & 2 clear RL	$280.77	$281.64	$279.77
C Select RL	267.71	285.41	273.14
D Select RL	210.40	201.96	202.92
SHOP S2S	No. 1	No. 2	No. 3
5/4	$134.92	$ 97.37	$ 65.29
6/4	134.92	97.49	65.79
8/4	150.35	104.82	67.44

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4/4 No. 3 Common S2 or 4S	$ 61.00
2x4 No. 1 Dimension RW&L	80.25
2x4 No. 2 & Btr. Dimension RW&L	69.31

• Douglas Fir Lumber Prices

1x8 Utility S4S KD	$ 48- 51.00
2x4 Construction Dimension S4S KD	81- 83.00
1x4 C&Btr VG Flooring KD	170-175.00
1x6 C&Btr Drop Siding KD	157-160.00
1x6 C&Btr S4S KD	170-175.00
1x8 C&Btr S4S KD	170-175.00
1x10 C&Btr S4S KD	170-175.00
1x12 C&Btr S4S KD	215-220.00

CONSTRUCTION Timbers and Plank

3x12 6-20'	$ 80- 83.00
3x12 22-24'	85- 86.00
3x12 26-32'	93- 98.00
4x4 8-20'	81- 84.00
4x4 22-24'	86- 89.00
4x4 26-32'	94- 99.00
6x6 8-20'	77- 80.00
6x6 22-30'	84- 87.00
6x6 32-40'	99-102.00
8x8 8-20'	76- 79.00
8x8 22-30'	81- 84.00
8x8 32-40'	96- 99.00
6x10, 8x10, 10x10, 12x12— 8-20'	76- 79.00
6x10, 8x10, 10x10, 12x12—22-30'	81- 84.00
6x10, 8x10, 10x10, 12x12—32-40'	96- 99.00
Crossties	55- 58.00

CONSTRUCTION Dimension (Green)

2x4 6-24'	$ 63- 66.00
2x6 6-24'	64- 67.00
2x8 6-24'	63- 66.00
2x12 6-24'	64- 67.00

STANDARD & Btr. Boards (Green)

1x4 6-20'	$ 44- 47.00
1x8 6-20'	56- 59.00
1x12 6-20'	56- 59.00

• Douglas Fir Plywood

¼ inch AD SOIS	$ 72.00

• The core lathe of Lane Veneer Co., Eugene, Ore., is being replaced by an 8-foot Merritt-Solem lathe with 60-inch swing. General Manager Vance Vollmer says the firm is after more diversification.

48-Year Safety Mark Wins B. C. Award

• To work 48 years as a boom hand without suffering a single-loss accident is the amazing record of Giacamo Clozza, who works as lead hand in the booming grounds of Pacific Mills division, Crown Zellerbach Canada at Ocean Falls, B. C. He has been named "safety man of the year" by British Columbia's pulp and paper industry. A fellow employee of CZC —Carl Lillos, who recently retired, was runner-up. He worked 47 years without time-loss accident.

EASY ON SAWS!

WHELAND ROLLER BEARING BAND MILLS

Right Hand 6' Wheland No. 45 Roller Bearing Band Mill

OPERATORS: At the present high price of stumpage, you can pay for your Wheland Band Mill with what you save on sawdust!

MORE LABOR SAVING FEATURES

Smooth running. Fast sawing. Long, trouble-free service. Sizes for every mill: 54", 6', 7' and 8'. Furnished either right or left hand. Better built—by the pioneer who first developed Roller Bearing Band Mills—and who continues to lead the field!

BULLETINS ON REQUEST

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SCR-625 ARMY MINE DETECTOR

Recommended by U. S. Forestry Service and in numerous articles for finding concealed metal in logs and timber products. The Dautzler Lbr. Co., Perkinston, Miss., reports an estimated savings of $5,000 to $6,000 yearly. Write us for copy of free report of U. S. Forestry Service.

The SCR-625 is a portable instrument which may be used in the field to give an audible indication of buried metal in log, underground, or in water. It may also be connected permanently with automatic control devices for stopping machinery should imbedded metal in logs be encountered.

Detector is shipped in handy portable carrying case with instructions and ready to operate except for batteries. Ship. wt. 55 lbs. Our recent Government surplus purchase allows the present low price of $79.50 ea.
Batteries, per set—$6.27. Special price to quantity users or dealers upon request.

We maintain service and parts of the SCR-625. Parts price list on request.

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WPA

Mills at Anderson, Red Bluff, Castella, Wildwood, and Mt. Shasta, California

Sales and General Office at Anderson, California

Ships in Oversupply

By Robert C. Hill

Whether the charter market has reached its lowest point is a moot question in shipping circles. Developments of the month have failed to firm rates. Conditions are practically the same as four weeks ago. Levels show little change, ships are in oversupply and the inactive fleets are increasing.

In late October it was believed the turning point had been reached when a December cargo of trans-Atlantic coal was closed at 37/6, Holland discharge. This was a comparatively good rate and as the East Coast coal trade has been a barometer of shipping trends, this was accepted as a favorable omen. However, further improvement has not appeared and the latest coal charters were reported as low as 31 and 32 shillings. At the peak, less than a year ago, ships were in good demand for coal at more than 70 shillings.

Grain and lumber, with a few full cargo charters for scrap, were the leading items in Pacific Coast shipping. However, there was insufficient cargo, even at current low levels, to absorb the large number of carriers seeking business. This bearish condition might have resulted in still lower rates except that owners are standing with their backs to the wall, claiming that current cargo offerings barely cover operating costs.

Widespread Withdrawal in Offing

Unless the market improves shortly, there will be a widespread withdrawal of active tonnage and many vessels will be placed in reserve. In recent weeks, carriers have sailed in ballast, others have accepted poor business that helped to absorb expenses and others are in temporary layup awaiting better times.

The seasonal movement of cargo has failed to reach normal proportions this fall and this accounts in some measure for the market's failure to recover. Much depends on the policy of the United States Government with reference to the shipment of surplus agriculture items and relief shipments abroad. It is not expected that this movement will begin before early 1958, due to administrative details and negotiations with foreign officials. The number of potential cargoes involved is uncertain but when this program gets under way it will undoubtedly have a bullish bearing upon the general shipping situation.

The Maritime Administration has granted relief to several bareboat charterers of Government-owned ships, recognizing the hardships of the depressed market. This is designed as a temporary expedient. Maritime officials see the possibility that these ships may be required for freighting surplus foods in the near future and the moratorium on bareboat tonnage will obviate the costs of placing them in the idle fleet. The agriculture and surplus relief cargoes may equal those of a year ago, totaling about three million tons in the first two quarters. This would amount to 300 full cargoes.

The intercoastal route, twenty years ago one of the best for American-flag ships, is suffering in general with shipping through the world. Business is not good, operating costs continue to rise and complaints of over tonnaging are heard. The Maritime Commission has asked several lines involved to state their case, with reference to the immediate prospects of the coast to coast trade. One Government-owned ship is still operating on the intercoastal route under bareboat charter, others having been recently returned to the Government.

Official Tells of Conditions

An intercoastal official stated to the writer:

"Westbound cargoes are off, principally because of the drastic falling off in the steel movement westbound, as indicated by Calmar's four ships being laid up and Weyerhaeuser bringing two west in ballast. The eastbound movement of lumber is still substantial but it is off considerably from what it has been for the last several years. There is too much tonnage in the trade for the existing movement.

"There is also the problem of very low rates on lump sum, free load and discharge, charters on foreign vessels from British Columbia to the North Atlantic. These charters are letting British Columbia lumber shippers enjoy rate advantages from $7 to $10 per thousand feet below the United States intercoastal rate."

The depression in construction and the resulting effect upon the lumber movement, combined with the drop in steel cargoes from the Atlantic have contributed to the problems of the coast to coast operators. They do not expect improvement in cargo offerings before next spring. Additional tonnage may be withdrawn. Management believes government officials should carefully survey the situation and take no step that would aggravate it.

In the meantime, full cargo lumber charters from the Canadian side to the North Atlantic are reported at $85,000 to $95,000 per ship. These low levels, comparing with $180,000 in late 1956, give the British Columbia shippers a decided advantage compared with the conference rate of $36 per thousand feet applying from the American side.

British Columbia exporters continue to do full cargo lumber business with Australia and South Africa. The weak position of lumber and the greatly reduced freights now obtainable have given foreign buyers an incentive to replenish their low inventories. Two charters for lumber to South Africa were reported at $135,000 and $137,500 while to Australia, prompt loading, $112,500 was paid.

Lumber rates from the Canadian side to the United Kingdom are quoted from 90 shillings to 97/6 or in American funds from $12.32 to $13.30, spot positions being lower than January/February shipments.

Time charters are weak and in line with other phases of the market, rates ranging from $1.60 to $3.43 per deadweight ton per month, depending on the size and position of the ship and other conditions.

The Maritime Administration announces plans to scrap in 1958 100 freighters of the Liberty type of the 1,400 idle vessels now in the layup fleet. Those to be broken up will be selected according to their condition. Government officials believe that with this country's replacement program, there will be ample reserve of seaworthy tonnage to meet possible emergencies. The Liberty type vessels were built fifteen years or more ago and many of them are now economically and physically unfit for further service.

G-P Tells Promotions In Import, Engineering

• Promotions in its engineering and import-export divisions announced by Georgia-Pacific Corp., Portland, Ore.

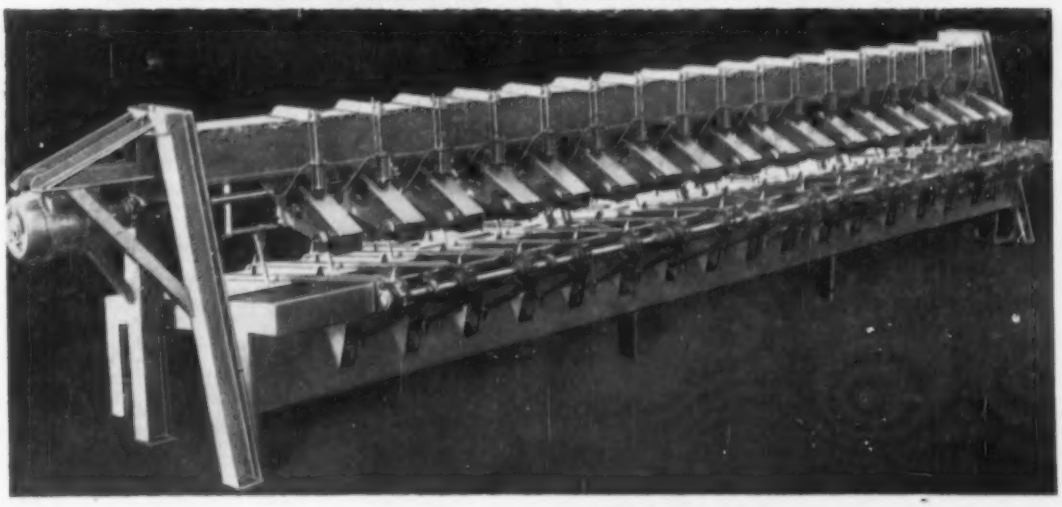
Elroy C. Carlson, formerly with U. S. Plywood, and previously plant engineer for M and M Wood Working Co. at Lyons, Ore., has been named staff engineer.

Arnold W. Bildsoe has been named manager of the firm's newly established import department. He formerly was manager of the Atkins, Kroll & Co.'s Portland, Ore., import-export office.

Alexander K. Conrad, formerly assistant sales manager in the export department of G-P's southern division, has been named manager of the department, succeeding the late John G. Puder.

SALEM SELECTRIC AUTOMATIC TRIMMER

BUILT RUGGED for CONTINUOUS USE



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Salem Equipment & Supply Co.

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Chip Output Growing In New England

• The newest method of conserving New England's forests—one that in the last year has saved several hundred thousand trees from cutting—has now been extended into Vermont, it was announced here today by Brown Company, Berlin, N. H., manufacturer of pulp, paper and other forest products.

C. S. Herr, vice president in charge of woods operations of Brown Company, disclosed that two new woodchip producing installations are now in operation, bringing to six the number of such plants in Maine, New Hampshire and Vermont supplying raw material to Brown Company by converting into usable chips the slabs and edgings from sawmills which formerly were burned or left to rot as waste material.

Brown Company also has its own chipping plant here for converting waste from its own sawmills and another installation at North Stratford for the conversion of veneer waste into usable chips.

The two new plants, one operated by Grossman's of Vermont, Inc., in Morrisville, Vt., and the other operated by the Lakes Region Chipping Corp. in Ashland, N. H., bring the total available supply of chips for productive use in the coming year to the equivalent of 55,000 cords of pulpwood logs, Herr said. Providing the same amount of raw material in the form of pulpwood would mean cutting of 450,000 additional trees each year, Herr said.

Brown Company's chip-using program was started in October 1955 in a joint arrangement with the Wilner Wood Products Co. of Norway, Me. Progressively, other chip-producing plants have been established by Timberlands, Inc., Dixfield, Maine; Robert Rausch, Fremont, N. H., and Andrew Paulson, Wing Road, N. H. Each of them take waste slabs and edgings from nearby sawmills and convert them into usable chips.

"The converting of barkfree slabs and edgings into raw material for pulp mills is one of the most significant and practical measures for conserving our timberlands and increasing our wood supply in the history of woods operations in the Northeast," Herr said. "It is an enterprise that will continue to grow and develop here in New England."

•

• A new Moore 6-line 16-section gas-fired dryer is being installed at Plywood Products Corp. near Corvallis, Ore.

Weyerhaeuser Estate Set at $11 Million

• The estate of the late J. P. Weyerhaeuser, Jr. has been appraised at $11,348,563. Of this total, $10,037,473 is listed as his separate estate, $1,311,190 as community property with his widow, Helen W. Weyerhaeuser of Tacoma, Wash.

Weyerhaeuser leaves his stock in Edward Hines Lumber Co., valued at $342,216, to the Weyerhaeuser Foundation Inc., St. Paul, Minn., for religious, charitable, scientific, literary, educational, public and like work. The remainder of his estate is left in trust, half to go to his widow and half to be divided equally among his four children, Ann W. Pascoe, John P. Weyerhaeuser III, George H. Weyerhaeuser and Elizabeth Meadowcroft.

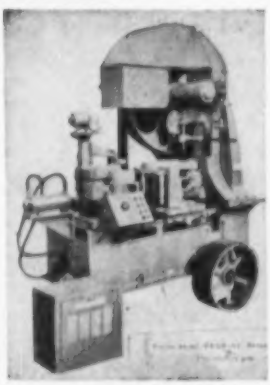
•

McQueary Resigns

Hobert McQueary has resigned as general manager of Willamette Fibre & Chipboard Co., Inc., Sweet Home, Ore., effective January 1. He will continue as president and director of the firm. McQueary and John Tyner organized the cooperative and started production in mid-1955. McQueary has not disclosed his future plans.

TURNER
BAND RESAWS and RIP SAWS

A proven field tested ALL purpose resaw—for slabbing; center sawing; ripping and resawing



Turner Model VEQS — 62 Resaw

42", 48", 52", 62" and 72" Tilting Vertical Singles, Standard and Beveler Tandem Twins, Horizontals

Prompt Delivery

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A New Concept in Continuous Moisture Control

LAUCKS Sentry CUSTOM
CONTINUOUS MOISTURE DETECTOR

The new Custom introduces an outstanding advance in SENTRY systems for measuring and recording moisture content of moving veneer, lumber, paper and various unrelated or non-cellulose materials.

The Custom accents unitized construction with primary circuits in lightweight "plug-in" type drawers. The moisture range has been expanded from zero to fibre saturation. Moisture classification (marking) of stock is governed by a single control.

Designed primarily for larger installations, Custom models are also ideal for overseas use. Through an exchange of drawers the entire system may be serviced or expanded without delay.

SENTRIES range from single level marking units to multi-level marking, recording and counting systems and are priced from $3,900. You are cordially invited to write for detailed information.

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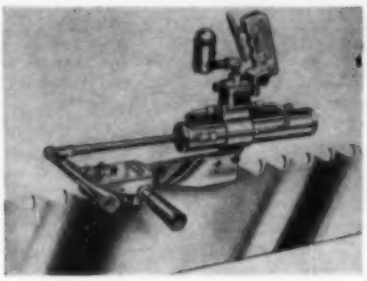
A leader in wood technology for 49 years

MACHINERY & EQUIPMENT



Shaper for Swaged Teeth Handles All Saws

• Band, gang and solid tooth circular saws can be accommodated by a new shaper for shaping swage teeth developed by Armstrong Manufacturing Co., Portland, Ore. The new type shaper, the 5500 for saws 16 gauge and lighter, and the 5700 (shown above with an air cylinder attachment) for saws 15 gauge or heavier, is of modern design, easy to operate.

Features pointed out by the manufacturer for the 5700 include a single bevel side die with four working surfaces easily refaced for long wear; self centering; tooth stop, located for easy access and adjustment, to provide accurate positioning of the shaper; independent side die adjustment; independently adjustable double acting clamp screws which are easily set for proper position; shaper head of heavy construction.

Speed of the cylinder on the Armstrong air-operated shaper can be adjusted in either direction by two needle valves.

•

Air Control Valves Use Simplifies Piping

• "Flow Director" pilot heads which provide more valve versatility and simplify piping are features of the Nopak-matic pilot operated poppet-type air control valves manufactured by Galland-Henning Nopak division, Milwaukee, Wis.

The flow director is a system of ball checks and is an integral part of both single and double solenoid pilot control heads. Its function is to automatically pick up pilot pressure from whichever port is used as the inlet and direct it to the pilot valve.

With its new design, the 2- and 3-way Nopak-matic valves can be piped normally open or normally closed to pressure simply by piping to the proper port. This eliminates the need of purchasing specific valve models for each application, or reassembling parts. Likewise, all 4-way valves can be piped with pressure to either of two inlet ports, changing the flow pattern through the valve.

Power Steering Added

Power steering, particularly helpful on tractors equipped with front end loaders, has been added to the John Deere line. It includes a hydraulic cylinder between the tractor front-end support and a special heavy-duty steering arm. The hydraulic cylinder, with its 8-inch stroke, receives oil from the regular Touch-o-matic hydraulic system through a special hydraulic flow divider and control value. The system is actuated by applying about three pounds of pressure to the steering wheel.

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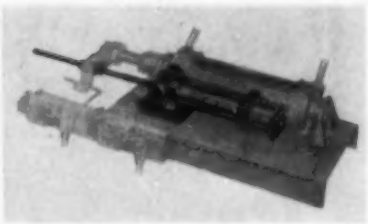


Hydraulic Checking Cylinders by Modernair

• A line of hydraulic checking cylinders designed for use with air cylinders to smooth out stroke variations under irregular loads has been developed by Modernair Corporation, San Leandro, Calif.

Used with proper air cylinder, they offer smooth, uniform controlled stroke speed, the manufacturer points out.

Maximum checking capacity is 2000 pounds on the out stroke with free return. Models are available with 2, 4, 6, 9, 15 and 18-inch checking stroke lengths. Speed control is dial-set and is load-compensated to assure uniform speed under changing loads.

•

• Yates-American Machine Co. has consolidated its High Point, N. C., and Memphis, Tenn., branch offices.

• Graton & Knight Co., Inc., has purchased Warren Belting Co. and will operate it as a division. Both firms are located in Worcester, Mass.

Motor Development By Louis Allis Co.

• A synchronous induction motor built in the same NEMA frame size as a standard motor of equal horsepower has been announced by the Louis Allis Co., Milwaukee, Wis. It is called the Syncro-Spede.

The motor accelerates as an induction motor but runs at exact synchronous speed without permanent magnets or D. C. excitation involving collector rings and brushes, wound rotating fields, etc. The unit is suitable for uses on many applications requiring constant speed with varying load.

As a conveyor drive, the motor makes it possible to have an exact constant-speed or adjustable-speed system from no-load to full load conditions with a minimum of driving units and controls.

The Syncro-Spede is manufactured in ratings from 1 to 100 horsepower in any enclosure type and can be foot- or flange-mounted. It is designed for horizontal or vertical mounting with a wide range of mechanical modifications available to meet specific application requirements.

•

New Lubricant Seal For D9 Tractors

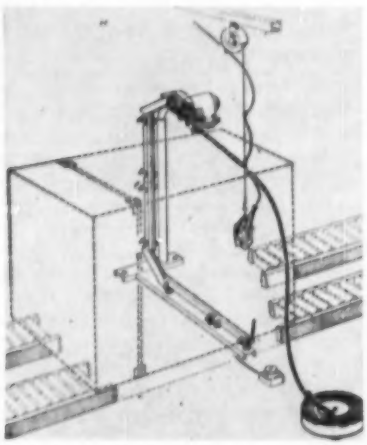
• An improved lubricant seal for the final drive on Caterpillar D9 tractors is now available from Sure-Seal Equipment Co. in Portland, Ore. In addition to conventional outer rubber bellow seals, it has an inner seal consisting of a rubber O-ring which rides between metal flanges. This inner seal retains lubricant even though the outer bellows seal is ruptured. It also prevents dirt, water and other matter from entering the final drive.

Other features include rubber grommets on the locating pin to hold the seal in position during installation, flexible oil-resistant bellows rubber for extra strength, equal pressure springs which exert sufficient pressure for a good seal without causing excess friction.

NEW SIMONDS ABRASIVE CO. PLANT in El Monte, Calif., contains complete manufacturing facilities for production of vitrified and resinoid bonded abrasive products. The new plant will operate as a complete self-contained branch of Simonds Abrasive Co., supplementing the branch warehouse already established on the west coast at San Francisco and Portland, Ore., and local stocks and services throughout the west.

Power Strap Feeder Speeds Bundle Strapping

• The Signode Model PSF-1 power strap feeder speeds strapping of bundles, reduces operator fatigue and permits units to be strapped by one man. The Model PSF-1 feeds up to 140 feet of strapping a minute, when used with power operated strapping tool will apply up to 200 straps per hour. It will handle a wide range of package shapes and sizes and will feed straps through openings in skid runners.



It is flexible: can be mounted on a conveyor as shown in picture above, or set up as a separate strapping station.

The unit is powered by a 1/4-hp electric motor, has a foot switch which is the only electrical control needed. The machine will handle any size strapping from 5/16x.013 inch to 3/4x.035 inch.

Signode Steel Strapping Co. will furnish the complete installation, consisting of an electric strap feeder, correct length strap chute that goes around the unit to be strapped, a pneumatically or electrically operated strapping machine, tool suspension equipment and a Model DF-20 strapping dispenser.

New Overhead Guard

A spring-loaded overhead guard for quick access to engines has been introduced by the Industrial Truck division, Clark Equipment Co. Rear support of the guard is a spring-loaded strut that swings up and out of the way, providing room for the hood to be tilted back during engine maintenance. Easy removal of the Clarklift hook-type counterweight also is provided. Front supports are bolted to the fork truck chassis. The guard is slightly narrower than the fork truck to prevent damage to it when working in areas of little clearance.

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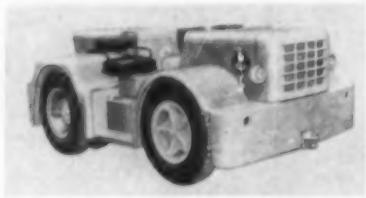


New Paymover Tractor Added by Hough

• A new Paymover tractor which develops 15,000 pounds of drawbar effort and features power steering, 4-wheel-power braker, power shifted transmission and planetary-type final drives has been announced by The Frank G. Hough Co., Libertyville.

It is a compact unit, will handle loads up to 250,000 pounds. Head lights and tail lights are standard equipment on the T-150. Accessory equipment includes 2-way radio, cabs, snow plows, sweepers and winches.

•

New Control Valve

A new pressure compensated flow control valve which also corrects for flow variations due to fluid temperature changes has been announced by Vickers, Inc., Detroit, Mich. Average flow variations due to temperature changes have been reduced by about one-quarter. A single adjustable throttle is used for all flow rates from 5 to 1000 cubic inches per minute. This eliminates the possibility of mounting an incorrect valve and reduces stock requirements where multiple flow rates may be necessary.

•

Lower Lift Channels

Yale & Towne Manufacturing Co. has developed an industrial lift truck with channels that lower below ground level for special handling jobs. In a 6000-pound capacity model, the truck can handle loads off a level 72 inches below the floor and raise them to a height of 41 inches above ground level.

PERSONALITIES

Charles A. Woodley has been elected an executive vice-president of Caterpillar Tractor Co. He will continue to give administrative direction to the company's manufacturing division. Woodley was named plant manager at Peoria in 1953, was elected a vice-president in 1954.

C. A. WOODLEY B. G. LEIBEL

New sales manager at Irvington Machine Works, Portland, Ore., is ***Byron G. Leibel.*** He joined the firm in 1952 and spent four years as factory field representative in Oregon and southern Idaho. He was named assistant sales manager in 1956.

Two new positions in sales management of its abrasive division have been created by Norton Company. ***Robert Cushman,*** with Norton since 1944, becomes manager of marketing services, and ***W. Alexander McCune, Jr.,*** with Norton since 1940, becomes manager of field sales.

Standard Oil Company of California has appointed ***Gordon O. Macauley*** regional manager (wholesale sales) in the Portland, Ore., region. He formerly held the same post in Honolulu and is a former assistant manager in the Portland area. He succeeds the late ***E. V. Burns.*** Macauley has been with Standard since 1919.

G. O. MACAULEY R. R. WYCKOFF

A. J. Gerrard & Co. has appointed ***Ralph R. Wyckoff*** sales promotion manager. Wyckoff has extensive background in the materials handling field.

DALE SARVER

L. G. FLEENER

Two new northwest sales representatives have been appointed by Mill Equipment, Inc., Seattle, Wash. They include ***Dale Sarver,*** who will cover northern Washington including the area east of the Cascades, and ***Loren G. Fleener,*** who will handle the area south of Seattle and west of the Cascades. Both have extensive experience in sawmill equipment, both will headquarter in Seattle.

Two new assistant sales managers at Hyster Company are ***Walter A. St. Clair,*** formerly in the eastern division, who becomes assistant sales manager of the industrial truck division, and ***James N. Rector,*** former district manager in the southeast district, who becomes assistant sales manager in the industrial truck division.

Executive changes at Valvair Corporation include election of ***J. E. Collins,*** former president, to the newly formed post of chairman of the board, and former executive vice-president ***W. P. Kruspe*** to succeed Collins as president and gengeneral manager.

A research and development center has been established by J. I. Case Company at Racine, Wis., and placed under the direction of ***T. A. Haller.*** Haller was recently named vice-president in charge of engineering to direct the center.

Two executive sales staff promotions have been announced by the General Tire & Rubber Co. ***Merrill E. Majors,*** formerly regional manager, retail stores division, becomes west coast manager, national account sales. He has been associated with the firm for almost 35 years. ***William C. Weirath*** is promoted to manager of commercial tire sales. He succeeds ***Karl A. Daksky,*** who is promoted to manager of commercial products and development.

Bruce S. Galbraith has been named eastern district sales manager of the Polyco-Monomer department of the Borden Company's chemical division. He will headquarter in New York City.

Be-Ge Adds to Line

Be-Ge Manufacturing Co. of Gilroy, Calif., has added new sizes to its line of industrial heavy-duty hydraulic cylinders. They include standard Be-Ge features, such as pressure-sealing piston and rod packing to replace the customary "O" rings, hard-chromed ground piston rods, welded-on cylinder heads at the tube end, and homogenous wiper on the rod end of each cylinder to keep out foreign matter.

•

Enterprise Reinstates Angle Band Saw

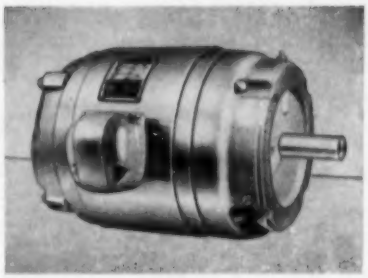
• The Crescent 36-inch angle band saw, often called a ship building saw, has been returned to the Enterprise Company line. The Columbiana, Ohio, manufacturer says the unit provides the advantage of handling work on a table which is always level. It is particularly useful in working large pieces. Stock 12 inches square, 10 feet long can be easily beveled, contoured and twisted by one man.

Angles from 0 to 45 degrees to the left, 5 degrees to the right are possible. A graduated scale and pointer accurately indicate the degree of angle. Tilt is governed by a crack on the life side of the table and all other parts adjust automatically to the selected angle.

•

Power Steering Added

Power steering is now available as optional equipment on the Hyster Company series of pneumatic-tired trucks in the 3000, 4000 and 5000-pound capacity range. These trucks comprise the new line released by Hyster last year, feature large pneumatic tires and a dual-tired trunnion steering assembly. The optional power steering features a flow divider in the hydraulic system that always directs fluid first to the power steering unit.



New U. S. Uniclosed, Footless Motor

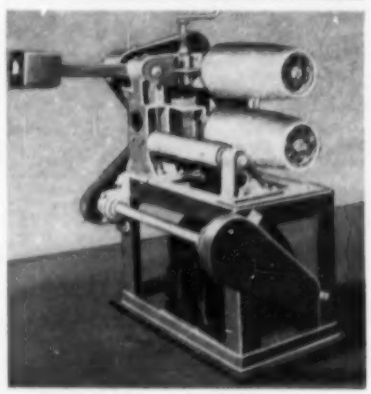
• The new uninclosed, footless motor being produced by U. S. Electrical Motors, Inc., is designed for direct connection to driven equipment, is supplied with NEMA style "C" Unimount bracket for automatic alignment. The compact unit is available in ratings from 1 to 30 horsepower.

Other features include a Ventrifoil deflector which directs air and deflects water; cast iron, 1-piece frame heat-treated to prevent warpage; asbestos protected windings; a cast iron, split-type conduit box for easy access to motor leads that may be located above, below or on either side of the motor.

•

New Stearns Disc Brake

The new style UH 70 Series of the Stearns Electro-magnetic disc brake is shorter, lighter and more easily mounted than its predecessor. It is offered in units rated at 10, 15, 25, 35, 50 and 76 pounds-foot maximum torque. The series is provided with a NEMA "C" bolt circle and register suitable for mounting on re-rated motor frames 213 through 286 U. At the present, only the alternating current model is available.



WILLAMETTE OFF-BEARING DELIVERY ROLLS for lumber handling equipment of Stetson-Ross have been announced. They will be sold as the 622E Lumber Puller. For finished lumber the machine will have white rubber rolls; smooth or spiral cast iron rolls optional. Sales will be through regular Stetson-Ross dealer-salesmen organizations.

The Klamath Iron Works BANDMILL

Designed to Boost your better lumber production

Shown here is the Klamath Iron Works Pacific Coast type, 8-foot bandmill. This unit is completely equipped with electric lifts . . . extra heavy construction . . . designed for ease of installation . . . knife-edge strain . . . roller bearing arbors.

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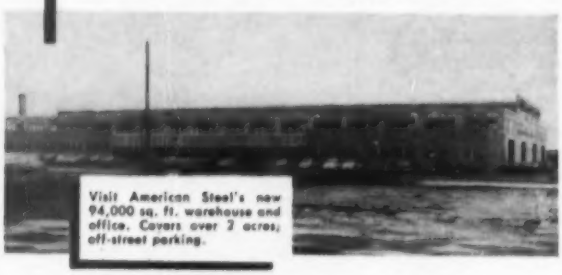

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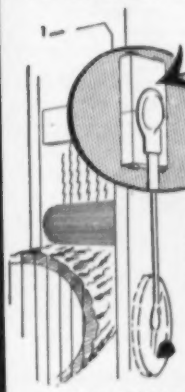

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1—American 77A, Model 5, ball bearing planer, 6 x 15, 10-knife, single profiler, complete set of belts for top and bottom cylinders and side heads, set of hoods for top and bottom cylinders and side heads, jointers for cylinders and side heads, with feed table.
1—Newman 12" all electric Moulder, 4 head.
1—American #5 10" Moulder in good used condition.
1—American #112 surfacer 24", in good used condition.
1—S. A. Woods #131 Moulder, 9", 4-head, equipped with slip on heads, babbitt bearing.
1—Yates 94 x 6 x 15 planer, 6-knife, top and bottom heads, ball bearing.

CARRIERS & LIFT TRUCKS

1—Ross 19HT lift truck, 10' lift, 6000 lb. capacity, reconditioned.
1—Ross 70-6045 Carrier, reconditioned.

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3—Tandem twin resaws, motorized.
1—Yates 281 Band ripsaw, 44".
1—Yates #311 Band Ripsaw, babbitt brg.
2—Yates 341 54" vertical resaws.
1—Marshon 54" vertical resaw.
1—American 54" vertical resaw.
1—66" Salem Resaw and line motor.
1—Mattison No. 244 motorized straight line cut-off saw.
1—#71 Newman knife grinder, like new.
1—Mattison #231 motor driven Ped. Knife Grinder.

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1—Klamath 6 ft. R.H. Band mill, ball bearing.
1—Mill Engineering Sandholm Gang Mill.
1—Clyde Iron Works Double Drum Donkey Log Loader with Ford Industrial Motor, complete with V belt drive.
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1—Yates-American No. 213 Glue Jointer, motorized.
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Ederer Engineering Co., Seattle, Wash.
Elliott Bay Plywood Machines, Seattle, Wash.
Mann-Russell, Inc., Tacoma, Wash.
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Stetson-Ross Machine Co., Seattle, Wash.

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Reed Electric Co., Portland, Ore.
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Republic Electric & Development Co., Seattle
Skoen Electric Works, Portland
Sterling Electric Motors, Inc., Los Angeles
Square D Company, Los Angeles, Calif.
U. S. Electrical Motors, Los Angeles; San Francisco; Seattle
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Weaver Co., Charles, Detroit
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Zidell Machinery & Supply Co., Portland, Ore.

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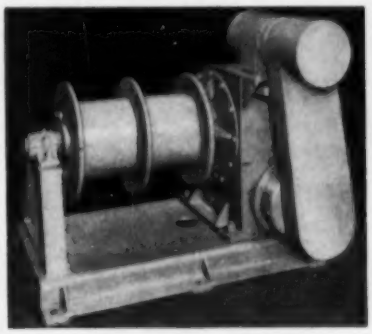

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Jones & Orth, Seattle; Memphis
Miner Saw Works, Columbia, S. C.
Metal Processing Co., Portland
Ohio Knife Company, Seattle; Portland; Oakland Cincinnati
Pacific Saw & Knife Co., Portland; Los Angeles
Penfield Saw Works, Thomaston, Conn.
Sandvik Canadian Ltd., Montreal; Vancouver, B. C.
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland
Spear & Jackson Ltd., Vancouver, B. C.; Eugene, Ore.

SAW GUIDES
Champion Friction Co., Eugene, Ore.

SAWMILL ERECTION
Ward, M. A., Construction Co., Eugene, Ore.
Thompson & Holmberg, Inc., Portland, Ore.

SAWMILL MACHINERY and EQUIPMENT
Albany Machine and Supply Co., Albany, Ore.
Banta Saw Works, Redding, Calif.
Burrard Drydock Co., Ltd., North Vancouver, B. C.
Caldwell Machinery Company, Portland
Robert Casey Co., Portland
Canadian Sumner Iron Works Ltd., Vancouver, B. C.
Crown Machinery & Supply Co., Portland
Dominion Bridge Co., Ltd., Vancouver, B. C.
The Enterprise Co., Columbiana, Ohio
Electric Steel Foundry Co., Portland; Seattle; San Francisco; Houston, Texas; Eugene, Ore.; Spokane, Wash.
Evergreen Equipment Company, Portland
J. A. Fay & Egan Co., Cincinnati, Ohio
Filer & Stowell Co., Milwaukee; Portland
Frick Company, Waynesville, Pa.
Forest Products Machinery, Inc., Salem, Ore.
General Machinery Co., Portland
Goldstein & Bloch, Aberdeen, Wash.
Gunderson Bros. Engineering Corp., Portland
Hoops, Waterous Sawmill Products Ltd., New Westminster, B. C.
Idaco Engineering Co., Oakland, Calif.
Irvington Machine Works, Portland
Jackson Lumber Harvester Co., Inc., Brewton, Ala.
Jeddohl Bros., Gold Hill, Ore.
Johnson Mfg. Co., Seattle, Wash.
I. W. Johnson Engineering Co., Tacoma, Wash.
Keystone Machine Works, Roseburg, Ore.
Klamath Iron Works, Klamath Falls, Ore.
Klamath Machine & Locomotive Works, Klamath Falls
Klamath Machinery Co., Klamath Falls, Ore.
Kimwood Machine Works, Cottage Grove, Ore.
Kliever Machine Co., Medford, Ore.
L-M Equipment Co., Portland, Ore.
Lane Manufacturing Co., Montpelier, Vt.
Luster Engineering & Machine Works Co., Seattle
Lufkin Foundry & Machine Works, Lufkin, Texas
Mater Machine Works, Corvallis
McDonough Mfg. Co., Eau Claire, Wis.
Medford Machinery Co., Medford, Ore.
Mereen-Johnson Machine Co., Minneapolis
Mill Engineering & Supply Co., Seattle, Wash.
Mill Equipment, Inc., Seattle
Miner Edger Works, Meridian, Miss.
Monarch Forge & Machine Works, Portland
B. A. Montague Co., Sumpter, S. C.
National Machinery Sales, Gold Hill, Ore.
Newman Machine Co., Greensboro, N. C.
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SUNBO 26" Log gang saw w/ Drive. USE THE BEST.
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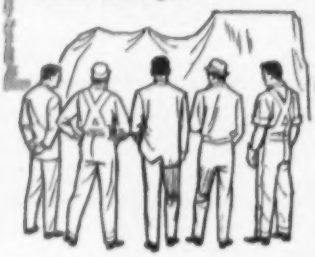

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Salem Equipment & Supply Co., Salem, Ore.
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Schurman Machine Works, Inc., Woodland, Wash.
Soderhamn Machine Mfg. Co., Portland, Ore.
Soule Steam Feed Works, Meridian, Miss.
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Star Machinery Co., Seattle; Spokane; Portland
Sumner Iron Works, Everett, Wash.
Fred E. Barnett Co., San Francisco; Eureka; Ukiah; North Sacramento, Calif.
Turner Machinery Co., San Francisco
Union Iron Works, Spokane, Wash.
M. A. Ward Construction Co., Eugene, Ore.
Western Steel & Supply Co., Dallas, Ore.
The Whaland Company, Chattanooga, Tenn.
Wickes Bros., Saginaw, Mich.
Yates-American Machine Co., Beloit, Wis.; High Point, N. C.; Memphis, Tenn.; Portland
Zidell Machinery & Supply Co., Portland

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Klamath Machine & Locomotive Works, Klamath Falls, Ore.
Motor Machine Works, Corvallis, Ore.
Mill Equipment, Inc., Seattle

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Bend Iron Works, Bend, Ore.
Mill Engineering & Supply Co., Seattle

SHINGLE MILL MACHINERY

Canadian Sumner Iron Works, Vancouver, B. C.
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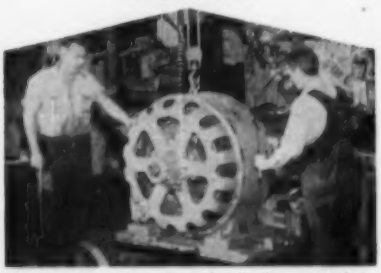

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The Falk Corporation, Milwaukee, Wis.
Ohio Gear Co., Cleveland, Ohio
Philadelphia Gear Works, Philadelphia; Seattle; Portland; Houston, Tex.
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Western Gear Corp., Lynwood, Calif.; San Francisco; Houston and Dallas, Texas; Seattle; Portland; Spokane

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Grinnell Company of the Pacific, Seattle; Portland; San Francisco; Los Angeles; Spokane, Wash.; Denver, Colo.
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Viking Automatic Sprinkler Co., Seattle; Portland; San Francisco; Vancouver, B. C.; Calgary, Canada

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Chain Belt Co., Seattle; Portland; San Francisco
Cullman Wheel Co., Chicago; Los Angeles
Diamond Chain Co., Inc., Indianapolis, Ind.; Atlanta, Ga.; San Francisco; Los Angeles
Falk Corporation, Milwaukee; Portland
Foote Bros. Gear & Machine Corp., Chicago
Gear Engineering & Manufacturing Co., Lynwood, Calif.
Link-Belt Co., Chicago; San Francisco; Seattle; Portland
Linn Gear Co., Lebanon, Ore.
Soule Steam Feed Works, Meridian, Miss.

STACKERS, UNSTACKERS, TRANSFERS

American Manufacturing Co., Tacoma, Wash.
C. M. Lovsted & Co., Seattle
Lawson Stacker Co., Memphis, Tenn.
Moore Dry Kiln, Portland; Jacksonville, Fla.
Stetson-Ross Machine Co., Inc., Seattle

STEEL, products, buildings, structural, industrial

Armco Drainage & Metal Products, Inc., Middletown, Ohio; Berkeley, Calif.; Seattle; Portland; Spokane; Atlanta; Denver; Houston; Guelph, Ontario
Bethlehem Pacific Coast Steel Co., San Francisco Seattle; Portland; Spokane; Los Angeles; Phoenix, Ariz.; Vancouver, B. C.
L. S. Baier and Associates, Portland
L. B. Foster Company, Pittsburgh, Pa.
Inland Steel Company, Chicago
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Midland Steel & Equipment Co., Detroit
Pacific Machinery & Tool Steel Co., Portland
Soule Steel Company, San Francisco

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Acme Steel Co., Chicago; Seattle; Portland; San Francisco; Atlanta; Spokane, Wash.
Brainard Steel Co., San Francisco
Gerrard Steel Strapping Division, U. S. Steel Corp., Chicago; Seattle; Portland; So. San Francisco; Birmingham, Ala.
A. J. Gerrard Co., Melrose Park, Ill.; Birmingham, Ala.; Houston, Texas
Signode Steel Strapping Co., Chicago; Seattle; Portland; San Francisco; Spokane, Wash.; Vancouver, B. C.
Stanley Works, New Britain; Seattle; Portland

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Armstrong Rubber Co., West Haven, Conn.
Dayton Rubber Company, Dayton, Ohio
Dunlop Tire & Rubber Corp., Buffalo, N. Y.
Firestone Tire & Rubber Co., Akron, Ohio
Fiske-Gillette Tire Div., U. S. Rubber Co., New York City
Gates Rubber Company, Denver, Colo.
General Tire & Rubber Co., Akron, Ohio; Portland
B. F. Goodrich Co., Akron, Ohio; Portland; Seattle
Goodyear Tire & Rubber Co., Akron, Ohio; Portland; Seattle
Kelly-Springfield Tire & Rubber Co., Cumberland, Md.
Lee Tire & Rubber Co., Conshohocken, Pa.
Mansfield Tire & Rubber Co., Mansfield, Ohio
Michelin Tire Corp., Brooklyn, N. Y.
Pacific Tire & Rubber Co., Oakland, Calif.
Pennsylvania Tire Co., Mansfield, Ohio
Sieberling Rubber Company, Akron, Ohio
U. S. Rubber Company, New York City; Portland; Seattle

TORQUE CONVERTERS

Allison Division, General Motors Corp.; Indianapolis, Ind.
Clark Equipment Co., Torcon, Div., Battle Creek, Mich.
Twin Disc Clutch Co., Hydraulic Division, Rockford, Ill.; Dallas, Texas; New Orleans, La.; Seattle

Schneider Division of Westinghouse, Muncie Ind.
Western Gear Works, Seattle

TRACTORS, Crawler
Allis-Chalmers Co., Milwaukee, Wis.
J. I. Case Mfg. Co., Racine, Wis.
Caterpillar Tractor Co., Portland; Seattle; San Francisco; Peoria, Ill.
Elmco Corp., Salt Lake City, Utah
Euclid Div., General Motors Corp., Cleveland, O
International Harvester Co., Chicago, Ill.
John Deere Co., Moline, Ill.
Oliver Corp., Chicago, Ill.

TRACTORS, Rubber Tired
Allis-Chalmers Co., Milwaukee, Wisc.
J. I. Case Co., Racine, Wis.
Caterpillar Tractor Co., Portland; Seattle; San Francisco; Peoria, Ill.
Four Wheel Drive Auto Co., Clintonville, Wis
Frank G. Hough Co., Libertyville, Ill.
Garret Distributors, Enumclaw, Wash.
John Deere Co., Moline, Ill.
LeRoi Co., Milwaukee, Wis.
R. G. LeTourneau, Inc., Longview, Texas
LeTourneau-Westinghouse Co., Peoria, Ill.
Minneapolis-Moline Co., Minneapolis, Minn
P. J. Westfall Co., Portland, Ore.
Wagner Tractor Co., Portland, Ore.

TRAILERS, log and lumber
Beall Pipe & Tank Co., Portland
Freuhauf Trailer Co., Detroit; Seattle; Portland
Peerless Trailer & Truck Service, Portland
Reliance Trailer & Truck Co., San Francisco
Trailmobile, Inc., Cincinnati, Ohio
Utility Trailer Mfg. Co., Los Angeles; San Francisco; Sacramento; Portland; Spokane; Denver
Wentworth & Irwin, Inc., Portland, Ore.

TRIMMERS
Albany Machine & Supply, Albany, Ore.
Canadian Sumner Iron Works, Ltd., Vancouver B. C.
I. W. Johnson Engineering Works, Tacoma
Irvington Machine Works, Portland, Ore.
Turner Machinery Co., San Francisco
Prescott Iron Works, Menominee; Portland
Portland Iron Works, Portland
Stetson-Ross Machine Co., Inc., Seattle
Klameth Iron Works, Klameth Falls, Ore.
Klameth Machine & Locomotive Works, Klameth Falls, Ore.
Sumner Iron Works, Everett, Wash.; Vancouver B. C.

VALVES, Steam, air, hydraulic
E. C. Davies, Portland, Ore.
Galland-Henning Co., Milwaukee; Portland
Hanna Engineering Works, Chicago
Modernair Corp., San Leandro, Calif.
Valvair Corp., Akron, Ohio
Racine Hydraulics and Machine, Inc., Racine, Wis
Soule Steam Feed Works, Meridian, Miss.
Vickers, Inc., Detroit; Seattle
Western Machinery Corp., Portland

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General Electric Co., Carboloy Dept., Detroit Mich.
Industrial Air Products Co., Portland; Seattle; Spokane
Linde Air Products Co., Indianapolis, Ind.
Steody Company, Whittier, Calif.

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Douglas-Guardian Warehouse Corp., New Orleans; Portland; San Francisco; Atlanta, Ga.; Dallas, Texas
Walter E. Heller & Co., Chicago
Lawrence Warehouse Co., San Francisco

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Ohio Hoist & Manufacturing Co., Cleveland, Ohio; San Francisco
Hyster Company, Portland, Ore.
Pacific Car & Foundry Co., Renton, Wash.; Chicago
Power Machinery Ltd., Vancouver, B. C.
Tulsa Winch Div. of Vickers, Inc., Tulsa, Okla.

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Longview Paint & Varnish Co., Longview, Wash.
Wall-Western Co., Portland

WOOD PIPE
Federal Pipe & Tank Co., Seattle

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Chapman Chemical Co., Memphis, Tenn.; Portland; Palo Alto, Calif.
Chemical Division, Koppers Corp., Pittsburgh, Pa.; San Francisco; Houston, Texas; Chicago
Dow Chemical Co., Midland, Mich.; Seattle
Monsanto Chemical Co., St. Louis, Mo.; Seattle
Reichhold Chemical Co., White Plains, New York; Seattle; San Francisco; Port Moody, B. C.
West Coast Wood Preserving Co., Seattle
Wood Treating Chemicals Co., St. Louis, Mo.; Portland
J. B. Ford Division, Wyandotte Chemicals Corp., Wyandotte, Mich.

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Ekstrom, Carlson & Co., Rockford, Ill.
Idaco Engineering & Equipment Co., Oakland, Calif.
Greenlee Bros. & Co., Rockford, Ill.
Onsrud Machine Works, Inc., Chicago
C. L. Porter Machinery Co., Grand Rapids, Mich
B. M. Root Company, York, Pa.
H. B. Smith Machine Co., Smithville, N. J.
Stetson-Ross Machine Co., Seattle, Wash.
The Tannewitz Works, Grand Rapids, Mich.
S. A. Woods Machine Co., Boston, Mass.; Portland, Ore.
Wyson & Miles Co., Greensboro, N. C.

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Pierce Wrapping Machine Co., La Grange, Ill
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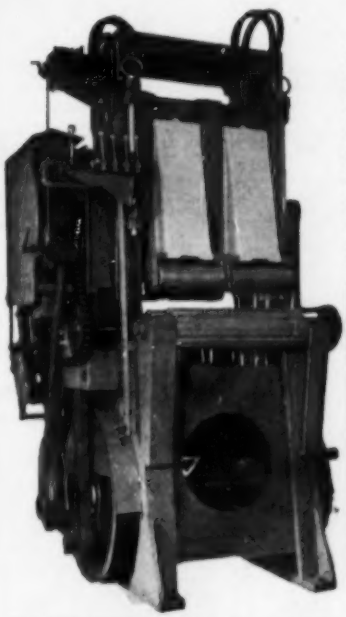
Efficient assembly line production makes Marathon the largest manufacturer of gang mills in North America, with resultant LOWEST COST.



28" MARATHON Gang Saw with Divided Rolls

Note These Features:
- Four Bottom Feed Rolls
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- SKF Roller Bearing Main Shaft
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- Both Gates Swing
- Manufactured in The Northwest
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The 28-Inch Series Cant Gang Mill
14" x 28" Opening

With divided top rolls, double bottom feed rolls (2 in and 2 out), variable feed works, 16 sets hangers, wedges and spacers. $13,750 FOB, Portland, Ore.

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Used 77A American 6 x 15 8 knife BB planer
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Used 99 Newman 6 x 15 6 knife planer
New BB Marathon 4 x 13 4 knife BB planer
Used 100 Heaps 5 x 15 BB pony planer
Used 10 Yates 10 x 30 4 knife sizer
Used 4" Englefield H. frequency moulder
Used 4"xl Smithway elect. moulder
Used 4" Stanford Premier elect. moulder
Used 969 Fay & Egan elect. moulder matcher
Used C88 Yates-American moulder
Used 8 x 36 Whitney single surfacer
Used 5 x 25 Hermanos single surfacer
Used 7 A1 Stetson Ross 6 x 15 electric sideheads
Used 17 A1 Stetson Ross 6 x 15 all electric
Used 108 Yates 12" moulder
Used 111 Yates 10" - 5 head moulder

EDGERS

Used 4" x 30" Enterprise 3 saw table edger
Used 4" x 32" Wheland 3 saw BB table edger
Used 4" x 32" American 3 saw stub edger
Used 4" x 36" Newport BB table edger
Used 4" x 42" Newport BB stub edger
Used 6" x 30" Heaps stub edger
Used 6" x 42" Barton 4 gang stub edger
New 6" x 54" Scharman—Latest Model
Used 6" x 60" LH table edger BB
Used 6" x 60" Salem late gang edger—Divided Rolls
Used 8" x 48" Evergreen BB dbl roll stub edger
Used 8" x 48" Salem BB stub edger, rebuilt
Used 8" x 60" Allis LH roller brg. stub edger
Used 8" x 60" Grays Harbor anti-friction edger
Used 12" x 72" Sumner, split rolls—200 h.p. motor
Used 12" x 84" Sumner Edger

HOGS AND CHIPPERS

New Diamond No. 25 hog
New Diamond No. 135 hog
New Diamond No. 145 hog
New Diamond No. 165 hog
Used No. 35 Diamond Hog
Used No. 38 Diamond Hog
Used No. 35 Puget Sound Hog
Used No. 40 Diamond Hog
Used No. 45 Diamond Hog
Used No. 45 Puget Sound BB hog
Used No. 35 Diamond Chipmill, roller bearing
Used No. 65 Diamond Hog
New No. 145 Diamond Chipmill, roller bearing
New 48" Chipmaster for slabs, roller bearing
Used 66" Sumner Chipper—roller bearing
Used 64" Hesse-Ersted 4-knife BB Chipper
Used 72" 3-knife chipper—Bargain Price

RESAWS & RIP SAWS

Used No. 0 American rip saw
Used 36" No. 2 Faye & Egan BB circular resaw
Used 36" Trojan BB circular resaw
Used 42" J. A. Fay & Egan band rip saw
Used 44" McDonough BB band resaw
Used 44" Berlin #111 band rip saw
Used 54" American #111 BB band resaw
Used 54" Morshon, anti-friction brg. tilt rolls
Used 72" Yates #H6 Horizontal band resaw
Used 72" Yates V6 HD band resaw
Used 84" Morshon resaw, sawmill type, quick set

NEW AND USED PUMPS

New 6 x 4 x 6 Worthington Duplex boiler feed
Used Worthington 4" Centrifugal—1000 GPM
Underwriter approved Firepumps—many sizes
Boiler water feed pumps—New & Used
Used 9" x 6" Fairbanks Centrifugal pump—500 GPM
Used 12" x 12" Westinghouse Centrifugal pump—3000 GPM
Used 8" Jeanesville 2 stage Centrifugal pump—2000 GPM

LOG AND CANT GANGS

Used 28" Wobrhahn Log Gang, air carriage
Used 34" Mill Engineering log gang, air carriage
Used 48" Wicks cant gang
Used 20" Marathon cant gang, like new
New 20" Marathon cant gang
New 20" Marathon for logs or cants
New 28" Marathon No. 300 for logs and cants
New 28" Marathon No. 400 divided roll cant gang
New 28" Linck gang saw

COMPRESSORS

33 cu. ft. New Worthington air cooled
43 cu. ft. New Worthington air cooled
65 cu. ft. New Worthington air cooled
105 cu. ft. NEW Worthington
122 cu. ft. Used Worthington air cooled
142 cu. ft. NEW Worthington
173 cu. ft. Used Ingersoll Rand, Water Cooled
194 cu. ft. New Worthington air cooled
198 cu. ft. Used Sullivan air cooled
240 cu. ft. Used Chicago Pneumatic, Water Cooled
311 cu. ft. Used Ingersoll Rand water cooled
324 cu. ft. Used Ingersoll Rand water cooled
465 cu. ft. New Worthington water cooled
500 cu. ft. Used Worthington water cooled
500 cu. ft. Used Ingersoll Rand water cooled
600 cu. ft. Used Jaeger air cooled
750 cu. ft Used Chicago Pneumatic water cooled

HOISTS AND CRANES

Used American dbl. drum 24 x 24, 40 HP
New Budgit hoists in stock
2 ton and 5 ton hand winches in stock

SHOP TOOLS

Used Oster pipe & bolt threader
Radial drill
American radial drill
8 x 16 Racine hydraulic back saw
Kempsmith geared Maximiller
10 x 36 quick change lathe

FEED WORKS

New Gardner Hydraulic Shotgun Feed—on order
Used Wheland 5" belt feed
Used 5 x 6 SpeeDee Twin feed
Used 16 x 18 Allis steam twin feed, self-contained
Used 3" hydraulic shotgun

FILING ROOM EQUIPMENT

Used 52" Armstrong gangsaw grinder
New Armstrong No. 4 Stretcher Roll
New Armstrong No. 4 Band Saw Grinder
New Armstrong No. 54 Circular Saw Gummer
Used Armstrong No. 6 Band Saw Grinder
Used Armstrong No. 16 Circular Saw Grinder
Used Covel No. 140 automatic Band Saw Grinder
Used Covel No. 83 24" Gang Saw Grinder
Used Covel No. 217 RH Band Saw Grinder
Used Covel No. 150 RH Band Saw Grinder
Used Covel No. 109 Stretcher Roll 16" capacity
Used Hanchett No. 250 LH Band Saw Grinder
Used Hanchett No. 724 36" auto. circular Saw Grinder

HEAD RIGS AND CARRIAGES

Used 6' Union Iron Works band mill
Used 54' Allis Chalmers Band Headrig—anti-friction
Used 6' Yates band mill, all cast, LH
Used 8' McDonough bandmill
Used 18' Monarch 3-block carriage Andrus set.
Used 16', 3-block 56" opening steel carriage
Used 18' Monarch 3-block 54" opening steel carriage
Used 14' International 3-block 52" opening steel carriage
Used 18' fabricated 3-block 60" opening steel carriage
Used 8' fabricated 3-block 32" opening steel carriage

LARGE MOTORS

Used 300 HP, 1200 RPM BB Fairbanks Morse
Used 300 HP, 600 RPM GE Slip Ring & Control
Used 250 HP, 600 RPM, West. Slip Ring & Control
Used 200 HP, 1200 RPM SB General Electric
Used 200 HP, 720 RPM SB General Electric
Used 150 HP, 720 RPM SB General Electric
Used 150 HP, 720 RPM SB Westinghouse
New 150 HP, 1200 RPM BB Allis-Chalmers
Used 100 HP, 1800 RPM BB Westinghouse
New 100 HP, 1200 RPM BB Allis-Chalmers
Used 100 HP, 1200 RPM SB Allis-Chalmers
Used 100 HP, 900 RPM SB General Electric
Used 100 HP, 900 RPM SB Fairbanks Morse
Used 100 HP, 720 RPM SB General Electric
Used 75 HP, 1800 RPM SB General Electric
Used 75 HP, 1200 RPM SB Allis-Chalmers
Used 75 HP, 1200 RPM SB Allis-Chalmers
Used 75 HP, 1200 RPM SB General Electric
Used 75 HP, 720 RPM SB Allis-Chalmers
Used 75 HP, 720 RPM, SB General Electric
PLUS MANY, MANY MORE

KNIFE GRINDERS

New Hanchett DH-40 Knife Grinder
Used 36" Fay & Egan No. 253 automatic knife grinder
Used American 30" knife grinder
Used American 32" straight wheel knife grinder
New Dependable No. 9945 36" motor drive, automatic knife grinder
New Dependable No. 101A sidehead grinder
New Defiance 38" motorized automatic knife grinder
Used Berlin 275—36" Automatic knife grinder
Used Dependable 36" knife grinder, cup wheel
Used Hanchett 36" knife grinder, cup wheel
Used S. A. Wood #226 Automatic 36" Knife Grinder
Used Newman Sidehead Grinder

MILL EQUIPMENT

New Crescent Lumber Harvester—on wheels
Used Cornith 1 man, 2 saw trimmer, 8' to 20'
New Wheland 1 man, 2 saw trimmer, elect. shift
Used 2-arm Log Step & Loader, 36" arm, 12 x 16 cyl.
Used 3-arm Log Step & Loader, 42" arm, 16 x 20 cyl.
Used 20' Portland Iron Log Turner
4—Used Gerlinger Carriers 42"
Steel Deck with flippers
Used 10" x 12" full oscillating Nigger
Used 6" x 8" full oscillating Nigger for air
Used Simonsen log turner, 12 x 96" cylinder

MISCELLANEOUS

Used Stetson Ross 54" swing saw—BB
Used Hesse-Ersted 6 HP motorized saw arbor
American Columbia 48" oscillating 3 drum sander
Used Irvington 60" arm swing saw
Morson Johnson 20' precision trim & printer
Used Yates 36"—3 drum sander

Agents for DIAMOND IRON WORKS—Fuel Hogs and Chipmills. GARDNER—Hydraulic Carriage Feed & Log Deck. SCHURMAN MACHINE WORKS—Edgers. BROOK MOTORS—Hoists. WORTHINGTON CORPORATION—Compressors and Pumps. WHELAND COMPANY—Band Mills, Circular Sawmills, Edgers, Trimmers, Carriages. IRVINGTON—Trim Saws. ARMSTRONG MFG. — Filing Room Equipment. DEPENDABLE— Knife Grinding Equipment and Moulders. ALLIS CHALMERS MFG.—Motors, Controls, Drives. COMET— Radial Arm Saws. DAVIS & WELLS—Woodworking Machinery. BEGE—Hydraulic Log Turners. P&H—Hoist. RISKS MFG.—Spray Equipment. MARATHON—AND LINCK GANG MILLS. SELECTRIC—Setworks. POWERMATIC—Tools. BROOK—Electric Motors.

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with broad experience in raw material procurement, manufacture, sales and shipment of timber, logs, lumber and associated wood products desires contact with organization that needs competent producer. Write TL Box 228, c/o THE LUMBERMAN, 519 S. W. Park Avenue, Portland 5, Oregon.

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Sawmill Superintendent or Manager, 20 years experience, desires position with reliable firm. California preferred. Know production, maintenance and construction. Pine or fir. Excellent references. Write TL box 232, c/o THE LUMBERMAN, 519 S.W. Park Avenue, Portland 5, Oregon.

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FOR SALE

66" Peeler Plant in Northern California. 24 acres land, lift trucks, etc. ½ mile from highway — timber available. $60,000.00 — $15,000 down, balance 6%. Write to J. L. Fellows, 107 Rosewood Drive, Cloverdale, California.

FOR SALE: Twin tank 300-HP GMC Diesel power plant, $4000. Guaranteed good. Will consider lumber in trade. Dooley Lumber Company, Los Angeles 22, California.

TWO FILER & STOWELL Trout Electric Set Works for sale. Lincoln Lumber Company, Lincoln, Washington.

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9800 W. Rogers Street
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Location: Tidewater, B. C. Six Shingle Machines, One Groover, Ample log supply, Dry Kilns. Write TL Box 227, c/o THE LUMBERMAN, 519 S. W. Park Avenue, Portland 5, Oregon.

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Ft. Bragg, California
Phone Yorktown 4-3700

1—Extrom Carlson, 4 x 6 Electric Ball Bearing Moulder with variable feed drive—4 Cutter Heads

1—S. A. Woods, Model 133BM All Electric Heavy Duty 5-Head 10" Ball Bearing Motor Complete with Many Heads

1—RT-150 Hyster Fork-Lift Truck

All in excellent condition. Available for inspection. Write TL Box 237, c/o THE LUMBERMAN, 519 S. W. Park Avenue, Portland 5, Oregon.

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RETAIL LUMBER—SE. ARIZ. Loc. in resort cen. Valbl. Franchises. R.E. bldgs. invtg. in sale. Ask $40,000. Eqpt. & invens. optional. Write B-24494.

LUMBER MILL—SE B. C. Perpetual mill leased 309,000 cu. ft. uncut timber, roads, logging camp, RR spur. Diesel mill, planer, rolling stock. Lease $75 yr. Net $15,523. Gallon. pot. mfg. Presto Logs. Ask $57,500. Write B24596.

SHINGLE MILL—SW. B. C. Mfg-sale shingles, shakes, etc. Demand X'ceds supply. Bldg-eqpt first class. RR spur. Estab '25. '57 net $15,000 closed part yr A/C strike. $15,000 back orders. Wea. oppty. Excel clim-ltr cond. Ask $35,000. Write B24607.

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Refuse Hog

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Moberly, Missouri

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1—7 ft. R.H. Klamath Band mill
1—10" x 36 ft. steam shotgun with valves
1—5" x 48" Klamath Edger with 50 hp motor, infeed & outfeed table, 4 movable saws
1—6' x 60" Edger, B.B. arbor, Babbitt bearing feed rolls, infeed & outfeed table
1—Workable gang saw, infeed & outfeed rolls, transfers, air cylinders, motors, saws & grinder (used only 2 months)
1—Practically new Gardner Denver Vee type Radial Air Compressor, 6 cylinder, 100# pressure 375 CFM, Vee belt drive
1—Rack & pinion carriage, air dogs, new Klamath Trout set works, 3 block, 48" opening, B. B. wheels, steel frame, rails
1—Roller Chain Block Carriage, air dog, 3 block 60" opening, steel frame, electric set, rails
4—Gear driven roll cases, steel frame, 8" x 24" rolls—jump skids and transfers, approx. 20' - 26 ft. long.
1—2 saw x 20 ft. crank type trimmer, with motors
1—2 saw x 16 ft. Prineville automatic trimmer (used only 6 months)
1—75 K. W. generator driven by—6 cylinder GMC diesel engine, 440/220 V
1—3" Fire pump driven by 8 cylinder Chrysler engine (like new)
1—3 Arm log stop & loader, 4 7/16 shaft
1—150 hp. 720 RPM Slip Ring Motor, sleeve bearing, grids and controls
1—100 hp D.C. carriage drive unit with drum—no generator
1—Air nigger, 9" x 9' cylinders, 2 Esco Manganese bars (like new)
2—New 20 ft. Prineville undercut trimmers with saws, motors & controls
Approx. 400 ft. almost new H-110 Portalloy steel chain, nearly new
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While every precaution is taken to insure accuracy, we cannot guarantee against the possibility of an occasional change or omission in preparation of this index.

Machinery at Work

BAIER BOOM BOAT recently put in operation by Nettleton Timber Co. in Seattle, Wash., is 24x8-foot unit, is used to tow and sort logs. The boat is longitudinally framed with ¼-inch hull plating and has a 2-inch wood planked deck. It is outfitted to meet Coast Guard requirements for registry. A Chrysler Imperial V-8 4583 gasoline engine powers the boat. Added protection against damage from logs is provided by three heavy pipe fenders at the waterline. Deckhouse is of steel with removable top for easy access to the propulsion engine.

INTERNATIONAL DROTT T-6 skid grapple uses its long reach to hoist a load of lumber onto piles in stacking yard of Hart Tie & Lumber Co., Black River, Wis. The unit also works in the woods. In decking ties and loading them onto trucks, it can place a load of 8-foot, 6-inch log ties on a 2-ton truck in an average of 15 minutes. It handles an average of 1200 ties weekly.

Relay Range Widened

Square D has announced an addition to its line of Class 8501 Type D, 10-ampere relays. Previously available in two sizes, 4 and 6 contacts, the relay is now available also in a 10 contact size with a maximum of six normally open and 4 normally closed or 8 normally open and 2 normally closed contacts. The new relay measures only five inches high and three inches wide.

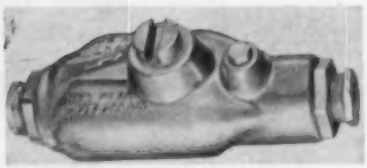
•

High Stacking Mast With Improved Visability

• Yale & Towne Manufacturing Co. has developed a new Triplex mast for extra high stacking with industrial lifts which also increases operator visability and adds channel stability.

Lifting is accomplished by three nested, I-beam lifting members which are raised hydraulically by the action of a multi-stage, lift cylinder. The cylinder operation requires only two, single lift chains, leaving the remainder of the space between the cylinder and uprights open for increased visibility. The two short chains work on a single pair of sheaves to transmit lifting power to the mast.

The triplex design is offered in standard over-all heights of 103, 144, 180, 198 and 210 inches.



Automatic Line Oiler Protects Equipment

• An automatic line oiler developed by Le Roi division, Westinghouse Air Brake Co. shuts off the air supply when oil is used up, eliminating damage to air tools. The new unit, L0380, is light in weight, easily adjusted and refillable while in use.

The positive type oil pickup feeds oil the instant drilling starts; the moment the oil supply is exhausted, the air supply to the air tool is shut off automatically. The one-pint capacity is more than adequate for one-shift operation.

The new oiler also prevents waste of excessive oil caused by inadequate adjustments of conventional line oilers.

•

• Link-Belt Company will be operating in its new Los Angeles, Calif., plant in mid-October. The new location provides more than double the previously available manufacturing area.

Yours for the Asking

WIRE ROPE FILM. The history of slings, their uses and determination of rates capacities are shown in a 16mm motion picture, "Take it Away" which is available for showings from Macwhyte Company, Public Relations Manager, Kenosha, Wis.

VIBRATING SCREEN SEPARATORS. Operating applications and specification data on the 30-inch SWECO vibrating screen separator are contained in a bulletin available from Southwestern Engineering Co., 4800 Santa Fe Avenue, Los Angeles 58, Calif., ask for Bulletin S 574-1.

BOLTON KNIVES. The custom crafting of its knives for specific applications in chip production is described in Bulletin No. CK-557 now available from John W. Bolton & Sons, Inc., Lawrence, Mass.

MONARCH BAND MILLS. Specifications for individual sizes of band mills, . . . 5, 6, 7, 8 and 9-foot . . . general specification and standard dimensions of individual machines are published in a 4-page booklet now available from Monarch Forge & Machine Works, 2130 N. W. York Street.

SHAPERS. Applications of its new air-operated shaper for band, gang and circular saws and a selector chart with costs are included in a 4-page bulletin available from Armstrong Manufacturing Co., 2135 N. W. 21st Avenue, Portland 8, Ore.

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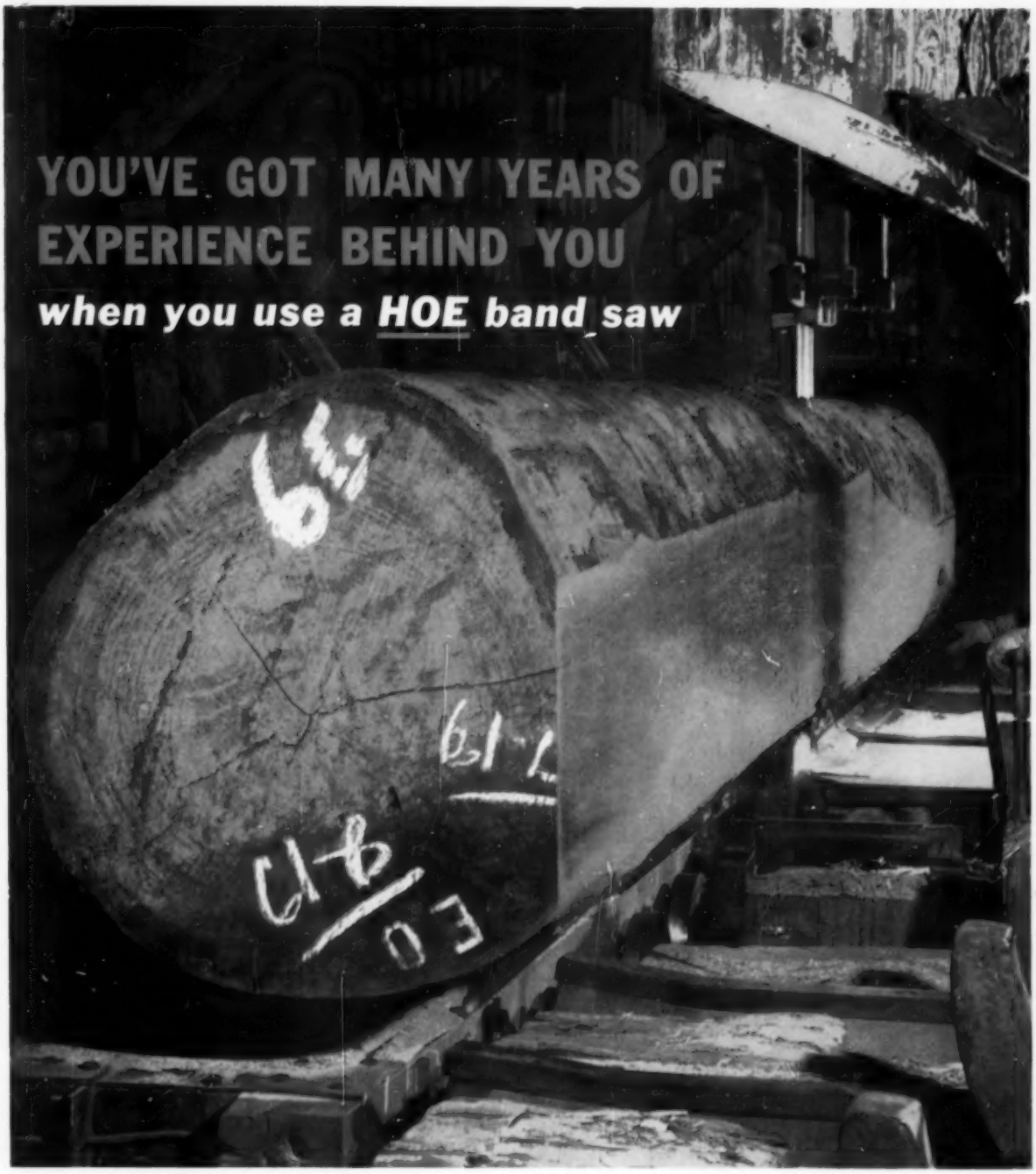

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